

JPRS 70143

11 November 1977

WORLD EPIDEMIOLOGY REVIEW

No. 88

**DISTRIBUTION STATEMENT A**

Approved for Public Release  
Distribution Unlimited

20000405 176

U. S. JOINT PUBLICATIONS RESEARCH SERVICE

Reproduced From  
Best Available Copy

#### NOTE

JPRS publications contain information primarily from foreign newspapers, periodicals and books, but also from news agency transmissions and broadcasts. Materials from foreign-language sources are translated; those from English-language sources are transcribed or reprinted, with the original phrasing and other characteristics retained.

Headlines, editorial reports, and material enclosed in brackets [] are supplied by JPRS. Processing indicators such as [Text] or [Excerpt] in the first line of each item, or following the last line of a brief, indicate how the original information was processed. Where no processing indicator is given, the information was summarized or extracted.

Unfamiliar names rendered phonetically or transliterated are enclosed in parentheses. Words or names preceded by a question mark and enclosed in parentheses were not clear in the original but have been supplied as appropriate in context. Other unattributed parenthetical notes within the body of an item originate with the source. Times within items are as given by source.

The contents of this publication in no way represent the policies, views or attitudes of the U.S. Government.

#### PROCUREMENT OF PUBLICATIONS

JPRS publications may be ordered from the National Technical Information Service, Springfield, Virginia 22151. In ordering, it is recommended that the JPRS number, title, date and author, if applicable, of publication be cited.

Current JPRS publications are announced in Government Reports Announcements issued semi-monthly by the National Technical Information Service, and are listed in the Monthly Catalog of U.S. Government Publications issued by the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402.

Indexes to this report (by keyword, author, personal names, title and series) are available through Bell & Howell, Old Mansfield Road, Wooster, Ohio, 44691.

Correspondence pertaining to matters other than procurement may be addressed to Joint Publications Research Service, 1000 North Glebe Road, Arlington, Virginia 22201.

11 November 1977

## WORLD EPIDEMIOLOGY REVIEW

No. 88

This serial publication, based on worldwide press and radio reports, contains information on the epidemiology of human, animal, and plant diseases. Disease incidence, reported outbreaks, and various related epidemiological factors are included. Items are presented by country of occurrence rather than by country of original press report.

## CONTENTS

PAGE

## I. GENERAL

Worldwide Reports on Cholera Outbreak.....	1
GENERAL.....	1
BRAZIL.....	24
CYPRUS.....	26
IRAN.....	27
IRAQ.....	28
JORDAN.....	28
LAOS.....	29
LEBANON.....	30
NIGERIA.....	38
POLAND.....	39
RHODESIA.....	40
ROMANIA.....	41
SAUDI ARABIA.....	41
SINGAPORE.....	43
SYRIA.....	43
TURKEY.....	54
ZAMBIA.....	65

## CONTENTS (Continued)

	Page
II. HUMAN DISEASES	
GENERAL.....	67
ARGENTINA.....	67
AUSTRALIA.....	73
AUSTRIA.....	76
BRAZIL.....	77
BURMA.....	88
EAST GERMANY.....	90
INDONESIA.....	91
NIGERIA.....	92
PEOPLE'S REPUBLIC OF CHINA.....	95
SENEGAL.....	96
SOUTH AFRICA.....	97
SYRIA.....	99
THAILAND.....	99
TURKEY.....	100
UGANDA.....	101
UNITED ARAB EMIRATES.....	101
URUGUAY.....	102
USSR.....	106
VIETNAM.....	107
III. ANIMAL DISEASES	
AUSTRALIA.....	108
COLOMBIA.....	108
SENEGAL.....	109
URUGUAY.....	110
IV. PLANT DISEASES AND INSECT PESTS	
GENERAL.....	112
IRAN.....	113
PEOPLE'S REPUBLIC OF CHINA.....	114
ZAIRE.....	114

## I. GENERAL

### CHOLERA OUTBREAK IN TUVALU AND GILBERT ISLANDS

Wellington THE EVENING POST in English 10 Sep 77 p 1

[Text] Auckland, 10 Sep (PA)--Two travellers arriving in Auckland have been checked for cholera symptoms following warnings of an outbreak of the disease in Tuvalu (formerly Ellice Islands) and Gilbert Islands.

The Health Department today appealed to anyone who has arrived from the islands group in the past two weeks to contact their District Health Officer "as a precautionary measure."

#### Deaths

Doctors, nurses, and technicians from the Army and Health Department flew to Tarawa today to try to stamp out the cholera. The disease has so far claimed three lives and put 30 people in hospital.

The supervising inspector of health in South Auckland (Mr W. D. McLeod) said the two people cleared of symptoms at Auckland Airport yesterday have been advised to contact authorities immediately if they became ill over the next six days--the incubation period for cholera.

Travellers from Fiji which has direct air links with both groups would also be thoroughly checked.

About 1,000 kilos of supplies will go with the team, mainly intravenous fluids to combat the diarrhoea.

The party is expected to be in Tarawa for two weeks after which time the disease should be under control, said Matron D. M. Shaw.

If not the team would probably be replaced, she said.

Cholera was treatable, but was also fatal depending on how sick people were before they got treatment.

It was impossible to guess what the team was going to find and decisions would have to be made after the situation could be properly assessed, she said.

Christchurch THE PRESS in English 10 Sep 77 p 1

[Text] Wellington--A military and Health Department team of 12 will fly to Tarawa Island in the Gilbert Islands today where an outbreak of cholera has left three persons dead and 30 in hospital.

The Minister of Defence (Mr McCready) said yesterday that the party, headed by a Territorial Force medical officer, would leave from Whenuapai early this morning.

"Word of the outbreak reached New Zealand early yesterday morning and although details are far from complete the situation appears to be such that the dispatch of a medical team is well justified," the Minister said.

The party, which will also take medical equipment and supplies, comprises doctors, nurses, orderlies, a public health inspector, and laboratory technicians.

Mr McCready said it was not clear how long the team would be needed at Tarawa but it was expected to be away for 14 days.

While in Tarawa, the team would work under the direction of the local medical authorities, Mr McCready said.

The Health Department is taking precautionary measures and all incoming airline passengers from the area are being checked on arrival in New Zealand.

Their addresses are being forwarded to the District Officer of Health in their areas.

All the travellers are being advised to see a doctor if they become ill, particularly if one of their symptoms is diarrhoea.

Dr R. C. Begg, the deputy director of the Public Health Division, said that anyone who had been in the Gilberts in the last week and who had not been contacted by health officials on arrival in New Zealand should also contact a doctor if they became ill.

Dr Begg emphasised that the measures being taken by the Health Department were precautionary aid aimed at being prepared should any cases of cholera show up in recent arrivals.

A British High Commission representative in Fiji said yesterday that word of the cholera outbreak came in a cable from the Gilbert Islands Governor to the High Commission in Suva.

The Gilbertese Government asked the High Commission to organise medical help, particularly intravenous fluid, which was running short, the cholera vaccine.

Gilbertese health authorities suspected the disease had spread through the water supply but they had not pinpointed the source of infection.

Fiji has begun taking strict health precautions against cholera.

A Fiji Government spokesman said that four Air Pacific crew, four Fiji citizens, and 20 transit passengers who arrived from Tarawa on Thursday evening were being checked.

Christchurch THE PRESS in English 12 Sep 77 p 1

[Excerpt] Auckland--A consignment of more than 10 tonnes of medical supplies will leave Auckland today for the Gilbert Islands, where an outbreak of cholera has now claimed nine lives.

The supplies will be sent in an R.N.Z.A.F. Hercules, in response to a request from the combined military and Health Department team which arrived in the islands from New Zealand on Saturday.

The cargo, mainly of intravenous fluids used to combat symptoms of the highly contagious disease, was drawn from Auckland Hospital and military sources, and was loaded in the Hercules throughout last evening.

The leader of the New Zealand medical team of 12 in the Gilberts said, however, that the cholera outbreak might have reached its peak.

Through satellite communication with Health Department officials in Wellington, Dr B. Linehan, a pathologist from Hamilton, said that the two hospitals in Tarawa had admitted 74 cholera cases.

The outbreak had killed nine persons, aged between one and 67. Five deaths had been reported since midday on Saturday, he said.

The disease has been confirmed as El Tor cholera--a slightly less desirable strain of the classical cholera.

The source of the outbreak has not been discovered, but it seems the water supply has been contaminated, and measures such as chlorination are being taken.

Hospital services are coping well.

At the last report, no expatriates in the Gilbert Islands had contracted the disease.

Medical checks are still being made on all passengers arriving at Auckland Airport, but no cholera suspects were reported during the week-end.

Two persons who arrived on Friday after visiting the Gilbert Islands were given a clean bill of health, but will be seen again after six days, the incubation period for the disease.

Wellington THE EVENING POST in English 14 Sep 77 p 8

[Text] A total of 157 diagnosed cases of cholera and 12 deaths from the disease was reported from the Gilbert Islands this morning. The disease had spread to northern Tarawa, but the clinical situation was still manageable.

Giving this information, a spokesman for the British High Commission in Wellington said today's message from the leader of the New Zealand medical team there (Dr B. J. Linehan) added that the figures should be treated with caution as not all cases, specially the early ones, had had the diagnosis confirmed bacteriologically.

The spokesman denied suggestions published this morning that there had been a blackout on information from the cholera-stricken Gilbert Islands.

He said a misunderstanding about the unavailability of information had arisen because the High Commission in Suva and the administration at Tarawa, where the New Zealand medical team was helping out, wanted to keep the satellite link open for urgent messages. The link had been inundated with queries from all over the world which simply could not be coped with.

"We will keep up a supply of whatever information is available and that can be obtained by the media through the Health Department," he said.

"There is no question whatever of suppression. We are simply taking the strain of coping with a continual stream of inquiries from the Press and those involved with the outbreak."

Many of the admissions were now early or minor cases as a result of intensive publicity, Dr Linehan had stated.

"Cholera eltor has been cultured from samples taken from public water supplies. Intensive chlorination is now being carried out in both public reticulation and in private water sources. The New Zealand team assisted

by Australian engineers is co-ordinating this task. It is estimated the effectiveness of this regime will not be apparent for another five days," the message said.

Epidemiologists had arrived at Tarawa. They were Dr Tim Kubriski from the South Pacific Commission and Tin Maung Maung from the World Health Organisation. They had endorsed the measures initiated by the New Zealand team.

Local authorities had decided to initiate a mass vaccination programme, although medical advice had not strongly supported this. The present policy was to treat all contacts with tetracycline.

There had been no reported cases of cholera among expatriates and all members of the New Zealand team were continuing to work at maximum efficiency, the message said.

Any arrivals in New Zealand from the Gilbert Islands were being checked, the deputy director of the public health division of the Health Department (Dr R. Campbell Begg) said.

In Wellington, the airport health inspector was checking on the state of health of any Gilbert and Ellice Islanders as soon as they arrived.

"Only two or three have come into the country since the checks began. We find out what their destination in New Zealand is and the medical officer of health in that particular district then keeps an eye on them. We see no need to give faecal tests at all," he said.

Wellington THE EVENING POST in English 15 Sep 77 p 1

[Text] The cholera epidemic on the Gilbert Islands now appears to have spread to a third and fourth island, the Health Department reported today.

The Health Department's principal Medical Officer of International Health (Dr Alex Sinclair) said it appeared that cases were now being reported from two other islands in the group.

Secondary

And this spread may be due to secondary infection, whereby the bacteria has been passed on by personal contact or by eating food handled by cholera victims or carriers.

The spread of the bacteria was at first solely attributed to contamination of the water supplies.

Dr Sinclair said the latest information through the Defence Department and from the British High Commission had brought the total number of diagnosed cases to 183 and the number of deaths to 13.

That information was based on the situation to midday yesterday.

Dr Sinclair said a mass vaccination programme had been started in South Tarawa.

The vaccine only provides about 30 percent protection for two to three months.

In addition, a more effective method of controlling the cholera outbreak, was now being carried out.

Each day the medical team is treating about 1,000 contacts of known cases, with the antibiotic tetracycline.

Tetracycline tablets are useful in treatment and prevention as they destroy bacteria in the intestine.

Dispensed

Dr Sinclair said the antibiotic would continue to be dispensed until the water supply was cleaned out.

This would probably take another week.

The medical team under Dr B. J. Linehan had asked for another large supply of the tablets and arrangements were being made to have them flown from Australia, tomorrow it is hoped.

Dr Sinclair said the epidemic had now peaked and was declining rapidly.

A lot of the more recent notifications were of mild cases who were reporting to hospital only as a result of the massive publicity.

Coping

The situation was well controlled. Laboratory services and medical staff were all coping quite well.

Asked when the team was likely to return to New Zealand, Dr Sinclair said an assessment would be made on the weekend but he did not anticipate their withdrawal before the end of next week.

Auckland THE NEW ZEALAND HERALD in English 16 Sep 77 p 3

[Text] Wellington--The cholera epidemic on two of the Gilbert Islands group now appears to have spread to another two islands, the Health Department reported yesterday.

However, it also said the epidemic had now peaked and was declining.

The department's principal medical officer of international health, Dr A. Sinclair, said yesterday it appeared that cases were now being reported from two other islands and this spread might be due to secondary infection.

The cholera bacteria could have been passed on by personal contact or by eating food handled by cholera victims or carriers.

The spread of the disease was at first attributed solely to contamination of the water supplies.

Dr Sinclair said the latest information through the Defence Department and from the British High Commission put the total number of diagnosed cases at noon yesterday at 183, and deaths at 13.

A mass vaccination programme had been started in South Tarawa, although the vaccine provided only about 30 per cent protection for two to three months.

A more effective method of controlling the outbreak was being carried out. Each day, the medical team was treating about 1,000 contacts of known cases with the antibiotic tetracycline, which destroyed bacteria in the intestine.

Dr Sinclair said the antibiotic would continue to be dispensed until the water supply was cleaned out. This would probably take another week.

Asked when the team was likely to return to New Zealand, he said an assessment would be made at the weekend, but he did not expect their withdrawal before the end of next week.

Wellington THE EVENING POST in English 16 Sep 77 p 1

[Text] The death toll from the cholera epidemic on the Gilbert Islands has now risen to 14 and 33 more cases have been admitted to hospital.

This brings the number of hospital admissions, since the first cholera cases were diagnosed a week ago, to 213.

### Discharged

However, 51 of these have now been discharged from hospital beds on the British-governed island group.

All 14 deaths so far reported have occurred on the Tarawa, the largest island in the group. One-third of the groups population, estimated at 50,000, lives on Tarawa.

The Gilberts consist of about 20 main islands and a number of smaller islands.

### Control

The Health Department's principal Medical Officer of International Health (Dr Alec Sinclair) said those who had died were either elderly or had not been admitted to hospital.

The situation was as before, with the outbreak under control and the incidence of new cases declining, he said.

The information available this morning was as it was reported in a brief telegram from the Island at midnight Wednesday.

The telegram was received by the British High Commission in Wellington this morning.

### Link

A more complete and up-to-date picture of the situation on the islands was expected this afternoon.

A telephone link from Wellington Polytechnic to the medical team on the Gilbert Islands via satellite was being arranged.

Christchurch THE PRESS in English 20 Sep 77 p 1

[Text] Wellington--The New Zealand health team is still struggling to control the cholera epidemic in the Gilbert Islands.

Seventy-one new cases had been recorded in the 48 hours to midnight on Sunday, the leader of the team, Dr B. J. Lineham, reported by radio to the Health Department in Wellington yesterday.

Another person died over the week-end and this, with two other deaths since the last radio link on Friday, brings the death toll to 17.

Both the team and the Health Department are worried about the fact that there has been no decrease in the spread of the disease after 10 days.

The department's principal medical officer of international health, Dr A. J. Sinclair, said: "We were hoping for a much more rapid decline in the number of daily cases.

"They have still got hospital admission rates of 30 to 40 people a day. We were hoping it would have declined to 10 or 15 by now."

Dr Sinclair said that the continuation of the epidemic indicated that many Gilbertese still lacked an appreciation of basic hygiene.

Christchurch THE PRESS in English 20 Sep 77 p 7

[Article by Cedric Mentiplay]

[Excerpts] Cholera is a savage killer. It strikes without warning, and within five hours the victim, body shrunken by the vomiting and diarrhoea that quickly dehydrates it, can be dead.

That was why, when word reached New Zealand last Friday week of a suspected outbreak in the Gilbert Islands, more than 1,000 miles north of Fiji, something had to be done, and done quickly.

The Government agencies, the Department of Health and the Ministers of Defence and Foreign Affairs, swung into action with the speed of long practice. Aircraft had to be arranged and serviced, the composition of a medical team decided and the team assembled. Diplomatic and other clearances were needed, the quantity and type of medication had to be decided, plus the 101 minor details that are an integral part of such an operation had to be tied up.

All the preparations had to be made on the assumption that the outbreak was cholera. People were dying and there just was not time to wait for confirmation. It happened, cholera was subsequently confirmed and the New Zealand party was at work in the Gilberts within 36 hours of the request, a remarkable achievement in the circumstances. Not only was the disease cholera, it was also of the particularly virulent strain named El Tor, so New Zealand's quick response was all the more important.

First word of the outbreak arrived at the office of the British High Commission in Suva late on the Thursday when the island administration sought assistance from New Zealand and from the World Health Organisation.

British High Commission officials in Wellington phoned Mr Paul Cotton, head of the Pacific Division, Ministry of Foreign Affairs, before 1 a.m. on the Friday. He discussed the call with a Ministry of Defence official

but nothing could be done until morning. At 7.30 a.m. he contacted Dr A. J. Sinclair, principal medical officer of international health, Department of Health. While planning for the mission went ahead the Ministry advised the Gilbert Islands that help was on the way, and arranged clearances in Fiji, where a refuelling stop was scheduled, and the Gilberts for the aircraft, crew and medical team.

The aid request said three people had died and another 39 were in hospital. It contained a small list, amounting to about a ton, of urgently-needed supplies.

"I decided that even if the outbreak wasn't cholera it was sufficiently alarming medically to justify sending a team to the island," Dr Sinclair said.

The Ministry of Foreign Affairs agreed to provide the necessary money through its disaster relief fund.

Friday morning was spent working with the Ministry of Defence staff on the composition of the joint armed forces and department of health team, and this was finalised by noon. The afternoon was spent arranging the delivery of supplies, mostly intravenous fluids, to Whenuapai.

At 5 p.m. on Friday another request for aid had come through the Suva office, this time for 30 tons of supplies. At this stage the Saturday flight was fully committed, and it was decided to wait until the team reached the islands and assessed the situation.

A report was received at 3.30 p.m. on Saturday and Dr Sinclair, after consulting Dr R. A. Barker, Deputy Director-General of Health, decided the situation was sufficiently serious to justify another flight. On Monday an R.N.Z.A.F. Hercules airlifted another 10 tons of supplies to the islands. In addition, public health authorities in Melbourne responded to a call for medical supplies--more special intravenous preparations--by loading them on to a commercial flight to Nauru Island on Sunday. They were later forwarded to Tarawa.

Communication had been established with the aid team via satellite on Saturday and daily contact was established. The leader of the team, Lieutenant-Colonel B. J. Linehan, of Hamilton, commanding officer of the 1st Field Hospital, was full of praise for the work and ability of local medical staff. They had coped exceedingly well with an extremely difficult situation, he reported.

By Monday the death toll had risen to nine and 78 were in hospital, but the good news was that the four extra deaths had occurred in villages, not hospitals, and that some patients had recovered sufficiently to be discharged.

Group Captain J. D. Waugh, director of manning at the Ministry of Defence, Wellington, said later the operation had been an exercise in interdepartmental cooperation. He remarked on the number of people who had pitched in to ensure things went smoothly and to schedule. The air movements people at Whenuapai played a big part, Group Captain Waugh said, and many others had been involved including aircrew and people to service aircraft.

The National Airways Corporation had cooperated in getting medical team members from the South Island to Auckland in time for the Saturday flight and even the R.N.Z.A.F.'s sole remaining Dakota was pressed into service to help get the team away on time.

That within 36 hours a team of skilled medical personnel from various parts of New Zealand had been assembled and delivered 2,500 miles to a Pacific island on a life-saving mission was a credit to all concerned, said Group Captain Waugh.

The original cause of the outbreak may never be known. Speculation that it might have been introduced by a carrier who visited the island is considered an academic question at this stage.

"It could have happened months ago," said Dr Sinclair. "A carrier may have used a latrine-type toilet and the infection could have travelled to a water supply via the water table. The fact that it was an explosive outbreak suggests contamination of the water supply, but that could have happened a long time ago."

Of his part in the exercise, Dr Sinclair comments that he was "just a member of a team." Many people had done a first-class job, especially several officers at the Auckland district office of the Department of Health who spent Friday afternoon and Sunday assembling supplies and getting them to Whenuapai.

"The cooperation of the department, the Ministry of Defence and the Ministry of Foreign Affairs was very gratifying," he said.

"It's nice to think we can respond in this way without having to cut our way through yards of red tape."

Wellington THE EVENING POST in English 20 Sep 77 p 6

[Text] The medical team on the Gilbert Islands has now detected cholera bacteria in the seawater lagoon on Tarawa, the main island in the Gilberts.

The Health Department's principal medical officer of international health (Dr Alec Sinclair) said today cholera was one of only a few bacteria which could survive in seawater.

He was not yet able to say what the significance of the find was.

However it must be a possibility that shellfish could become contaminated.

He said he would not be too worried about the likelihood of ordinary fish becoming contaminated.

Dr Sinclair said the islands were running short of sodium hypochlorite, a chemical needed for treating water supplies.

The high organic content in the water supply meant that large quantities--between 700 and 1,000 kilograms--were needed each week.

More supplies were expected to arrive at the islands today.

The latest information available, up to midnight Sunday, puts the death toll at 17 and the total number of cases at 352.

A further Peacesat satellite link with the medical team in the Gilberts has been arranged for tomorrow morning.

Dr Sinclair said it was likely that a date for the medical team's return to New Zealand would then be set.

Wellington THE EVENING POST in English 21 Sep 77 p 1

[Text] The spread of cholera from the Gilbert Islands to other parts of the Pacific must be a possibility, a senior Health Department official said today.

The department's principal medical officer of international health (Dr Alex Sinclair) said its spread had to be considered a possibility.

Surveillance measures which had been put into operation were pretty effective--if people understood the need for them and cooperated.

Other parts of the Pacific had inadequate water supplies and sewage disposal systems, which could enable cholera to spread.

And a number of those infected with cholera on the Gilberts, particularly the very mild cases where no treatment was sought, were likely to be carriers.

Dr Sinclair said they had not been able to determine how many carriers were likely. The New Zealand medical team on the islands had not been able to find out and "even the textbooks can't give us a figure."

At the moment no travel ban had been imposed and the only restriction on people leaving the Gilberts was that they had to have a valid vaccination certificate.

Dr Sinclair said vaccination did not give any great protection.

Various medical experts have estimated that it is only 30 to 50 per cent effective over only two to three months.

Asked if precautions against the introduction of the disease were inadequate in any part of the Pacific, he said all authorities were being vigilant.

He said he knew of no dramatic action in the past week to improve water supplies in other areas where they were inadequate.

"Aid projects from all countries were chipping away at this but nobody's done anything dramatic in the past week since the Gilbert Islands outbreak."

Dr Sinclair said it had been decided, in a satellite radio link-up with the island from Wellington this morning, that most of the New Zealand medical team would leave the island and come home on Saturday.

One of the medical officers, two public health workers and a laboratory technician will remain in the Gilberts for a further eight or nine days.

They would be joined by an additional laboratory worker, the National Health Institute's chief bacteriologist (Mr Desmond Till).

An RNZAF Andover will be leaving Whenuapai tomorrow with Mr Till aboard. It will also be carrying 500 kg of calcium hypochlorite which is needed to chlorinate the Gilbert Island water supplies.

It would return from the islands on Saturday with the team members who were no longer required.

Dr Sinclair said that in the 24 hours to midnight last night a further 22 people suspected of having cholera were admitted to hospital on the Gilberts.

The total number of hospital admissions now stands at 404. There had been no more deaths since the weekend when the toll stood at 17.

A large number of people reporting to hospital had only very mild symptoms and some were found not to have cholera at all.

"Most people were reporting to hospital within an hour of the first symptoms showing. We've obviously done a very good public relations job."

He said two local medical officers on the island had gone down with an influenza type illness and as a result some of the hospital's normal out-patient work was "getting a bit behind."

The laboratory workload was still quite heavy and work on testing water supplies was increasing.

Dr Sinclair said there was still no indication as to how the cholera bacteria had got to the islands.

He said he wanted to make the point that the New Zealand team had played a very big training role on the islands.

Wellington THE EVENING POST in English 22 Sep 77 p 30

[Text] An RNZAF Orion will fly to the Gilbert Islands tomorrow to pick up nine of the 12-man medical team which has been fighting the cholera epidemic on the islands for the last two weeks.

The aircraft will take to the islands the National Health Institute chief bacteriologist, Mr Desmond Till; a senior health inspector from South Auckland Mr W. McLeod, and 500 kilograms of HTH, a water-chlorinating chemical.

The Orion will remain on Tarawa, the main island in the Gilbert group, on Friday night, and is due back at the Whenuapai air base at 7 pm on Saturday.

The Health Department's principal medical officer of international health (Dr Alex Sinclair) said today there had been no new information from the islands since the satellite link-up yesterday morning.

The total number of people admitted to hospital then stood at 404, and there had been 17 deaths.

The outbreak appeared to be well under control. A number of the few cases reporting to hospital showed only mild symptoms.

The last death occurred last weekend.

Christchurch THE PRESS in English 24 Sep 77 p 6

[Text] Nine members of the medical team who have been working to control the cholera epidemic in the Gilbert Islands will return home this evening.

The Health Department's Principal Medical Officer of Health (Dr A. J. Sinclair) said yesterday that the situation in the islands was improving.

In the last 24 hours there had been 16 admissions to the base hospital in Tarawa. Most had been mild cases, and probably not all were cholera.

A total of 437 people had been admitted to the hospital during the epidemic.

The number of deaths still stood at 17, and no further deaths had been reported in the last few days.

The hospital had discharged enough people to empty one ward, Dr Sinclair said, and this would soon be used for normal hospital purposes.

"The situation is very rapidly coming back to normal."

Yesterday morning the National Health Institute's chief bacteriologist (Mr Desmond Till), and the South Auckland health district's supervising health inspector (Mr W. McLeod) left New Zealand for the Gilbert Islands. They took 500 kg of a chlorinating agent with them.

These two men and the three members of the team who are staying behind in the islands, are not expected to return until October 3.

Dr Sinclair said Australia would send 10 fully mechanised chlorinating units to the islands, and they would be installed permanently. Two experts will leave Melbourne tomorrow to install them.

Wellington THE EVENING POST in English 26 Sep 77 p 3

[Text] Auckland, 25 Sep (PA)--Long hours and hard work awaited the combined military and Health Department medical team which went to Tarawa in the Gilbert Islands to help fight the cholera outbreak.

Yesterday, two weeks after leaving for the island, nine of the 12 members arrived back at Whenuapai, satisfied that the outbreak was under control.

The leader of the team, Lieutenant-Colonel B. J. Linehan, said the operation had been a success.

"We found conditions much better than we expected," he said. "They had quite a sophisticated medical set-up, but it was just overwhelmed."

At midnight the previous night 444 people had been admitted to hospital with cholera, and 17 had died since the outbreak began. Nine of the deaths occurred outside the hospital, so it was not certain they were due to cholera.

Some deaths were reported two or three days after they occurred. Two islands other than Tarawa also had reported cases. The team of six New

Zealand Army and six Health Department people included doctors, nurses, and laboratory and public health workers.

The team found South Tarawa's water supply was not being adequately chlorinated. Chlorination was immediately stepped up.

Colonel Linehan said South Tarawa was getting a sewerage system and an improved water supply system. He thought another outbreak was possible, but unlikely.

A health inspector and a laboratory worker were flown to Tarawa in the Air Force Orion which brought the team back.

They would help the local staff to continue the improvements to the water supply and would come back with the three remaining members of the team on October 3.

Other members of the medical team said there were few outward signs on the island that anything was wrong.

#### EFFECTIVE STEPS BEING TAKEN TO COPE WITH CHOLERA

Cairo AL-AHRAM in Arabic 26 Sep 77 p 5

[Article by Khamis al-Bakri and Ahdaf al-Bandari: "Official Thinking About a Plan To Protect the Arabs From Cholera"]

[Text] In order to counter the cholera epidemic threatening the Arab countries, the Arab League had an emergency meeting of preventive health officials in the Arab countries the day before yesterday. This was to draft a comprehensive plan to fight the epidemic, particularly since the pilgrimage season is almost upon us, a season when millions of Moslems from all parts of the world come together and agreement had to be reached on precautions and decisive steps to prevent this serious disease from spreading.

"AL-AHRAM's Investigations" got together with representatives of the Arab countries where most of the cases of cholera have appeared to learn the facts about each.

A Preventive Medicine Official in Saudi Arabia: Pilgrims Need Not Fear Cholera

To insure a disease-free pilgrimage season, the Saudi Government is exerting every possible effort to guarantee that pilgrims will be safe from any diseases before they enter Saudi territory and is working to protect them from any exposure to cholera during the pilgrimage season.

According to Dr Hashim Salih al-Dabbagh, director general of preventive medicine in the Kingdom of Saudi Arabia, 24 cases of cholera have been isolated and all have been treated, there not having been a single death, and no new cases have appeared for 10 days.

With regard to coping with the possible movement of the disease during the pilgrimage season, Dr Hashim Salih al-Dabbagh says: "I would prefer that there be cooperation between Saudi Arabia and other countries to protect the pilgrims, namely, enforcement of the health stipulations requested by Saudi Arabia, e.g., the necessity of having certificates of inoculation against smallpox and yellow fever for those countries where these diseases are."

Five hospitals have been earmarked in al-Madina and Mecca and the proportion of chlorine in the drinking water has been doubled.

He goes on to say that there will be more than 15 preventive examination teams in Mina and 'Arafat. Each team will be composed of a doctor, aides and nurses and a vehicle to handle any emergency arising in the tents which will house millions of pilgrims.

There will also be environmental health teams comprising an engineer and technical assistants to oversee the marshy areas, sewers and garbage trucks. He feels that it is cleanliness which will protect us from this disease, not inoculation.

#### The Syrian Minister of Health: Syrian Authorities Now in Control of Cholera

Dr Fawzi Ramzi, Syrian minister of health, announced that cases of cholera had recently been confined to only 17 cases, the disease having reached its peak earlier, 2,508 cases with 75 deaths having been recorded since the epidemic entered the Syrian Republic on 26 July.

The minister said that the following overall plan had been laid down to control the arrival of the disease and to eliminate it and to try to determine the source and, at the same time, to prevent its onset in the future:

Discovering, identifying, isolating and treating cases.

Making careful examination of each patient entering quarantine, including those afflicted with the disease and analyzing the resultant data in a step by step fashion.

With regard to the countrywide efforts by Syria to confine the epidemic, Dr Yas Miftah says:

"We will permit no Syrian to leave the country without inoculation and careful scientific tests, particularly those who have been in contact with

the sick. With regard to Arab cooperation, there is pan-Arab cooperation being studied by Arab health officials which will require health supervision over movement back and forth among the Arab countries, preventive action to make the environment healthy, adoption of the necessary steps to supervise drinking water and sewage disposal and also a health awareness campaign for citizens and early discovery of cases of illness."

The Kuwaiti Minister of Health: The Threat of Cholera Is Being Lifted From the Area

Dr 'Abd-al-Rahman al-'Awadi, Kuwaiti minister of health and chairman of the emergency meeting of preventive health officials of the Arab countries, urged a comprehensive pan-Arab vigilance to prevent the repetition of seasonal epidemics of cholera which usually hit the Arab countries in the month of September, lifting with the onset of winter. Dr al-'Awadi warned that cholera could become endemic in the Arab area.

He said that not one death had resulted from the epidemic which swept over Lebanon, and the same was true for Iraq and Jordan.

Dr al-'Awadi said, regarding the health situation in Kuwait, that there have been five cases of cholera, all persons who came into Kuwait. Official authorization of mass inoculation is still under discussion although he said that clinics are performing voluntary inoculations inasmuch as we do not view inoculation as the whole answer for the epidemic. The important thing is personal attention to cleanliness. The Kuwaiti minister of health and chairman of the conference said that Arab cooperation would comprise medical and technical teams to assist Arab areas needing assistance in coping with the epidemic.

The cholera epidemic, which the health officials of the Arab countries met to cope with, is the seventh wave to hit the Arab homeland, having started in 1971. The first of the six previous waves was in 1848 and the sixth in 1923. The source of these waves is the banks of the Ganges River in the state of Bengal in India.

Beirut AL-SAFIR in Arabic 27 Sep 77 p 5

[Text] Dr Muhammad Muhanna, director of preventive medicine in the Ministry of Public Health, has stated that the emergency meeting held last week in Cairo, attended by preventive medical officials in the Arab countries, arrived at important, practical resolutions and recommendations to combat the cholera epidemic which has appeared in the region and to eliminate the economic obstacles which have been imposed on Arab countries as a result of the cholera outbreak, in order to restore economic activity in these countries to its former state. It also decided to provide health assistance to Lebanon.

At the same time, Dr Muhanna denied that any new cholera cases have appeared yesterday or in the past 3 days. He declared, "The number of cholera cases has not exceeded 30 and those afflicted with cholera are in the process of recovering."

#### A National Commission

The director of preventive medicine, who represented the Ministry of Health at the Cairo emergency meeting, declared that those attending the meeting decided to form a permanent national Arab Commission to combat epidemics in Arab countries, consisting of experts specializing in this field from Syria, Iraq, Egypt, Jordan and Saudi Arabia.

He also stated, "Preventive medical officials in Arab countries approved the measures adopted by the Lebanese Ministry of Health to combat cholera, to avoid resorting to inoculation and organic antidotes, and not to adopt a strict position on the matter of international anticholera certificates."

He added, "Those attending the conference supported the provision of health assistance for Lebanon. They will present recommendations to their governments to that effect in order to look into the subject of this assistance during Council of Arab Ministers of Health meetings which will be held next month."

Dr Muhanna commented on the resolutions and recommendations of the emergency meeting of preventive medical officials in Arab countries on the occasion of the outbreak of the cholera epidemic in this region. He said:

"This will have the effect of controlling the spread of cholera, preparatory to eliminating it, and it also makes it incumbent that total control be established over health conditions in the Arab countries, that epidemics be combated as soon as they appear and that the level of the environment be raised."

He added, "These resolutions and recommendations also took into consideration economic activity in various Arab countries and the fact that quarantines and the boycotting of some countries by others are not feasible, because none of these artificial obstacles will be of as much value in combating cholera as results produced by sanitation and correction of the environment."

#### The Campaign Locally

In the context of the campaign, the minister of public health, Dr Ibrahim Shu'aytu, yesterday held a lengthy meeting in his office in the Ministry of Water and Electricity Resources, which was attended by the director general of the Ministry of Health, Dr Robert Sa'adah, and officials of the water departments in order to discuss conditions in these departments,

follow up on the work and maintenance of sterilization equipment, and to stress again that water sterilization recommendations must be carried out and that chlorine materials must be added to water.

In another area, officials in the al-Turk Hospital stated yesterday that the total number of diarrhea and vomiting cases which had been brought to the hospital to that date came to 170, of which only 3 are still in the hospital. They declared that the rate of cases of food poisoning brought to the hospital has declined from its previous level.

#### The Texts of the Resolutions

Herewith follow the texts of the resolutions and recommendations of the emergency meeting of preventive medical officials of Arab countries on the occasion of the cholera epidemic in the region:

The first resolution: To promulgate a unified Arab plan to confront the spread of the cholera epidemic in Arab countries. This plan will consist of the following:

##### I. Movement of People

1. As soon as a cholera case appears in any Arab country, the country in which the case breaks out and is discovered must perform the following:

A. Rapidly inform other Arab countries, the Technical Secretariat of the Council of Arab Ministers of Health, and the World Health Organization.

B. If the case is imported, the country must inform the Arab country from which the afflicted person has come as well as the Technical Secretariat of the Council of Arab Ministers of Health.

2. If information concerning the appearance of a cholera epidemic in a neighboring Arab country comes to an Arab country, that Arab country must inform the Technical Secretariat of the Council of Arab Ministers of Health so that it may adopt the necessary procedures.

##### II. Preventive Measures To Be Adopted Regarding Persons Coming From Afflicted Areas

1. Abrogation of international certificates of inoculation against cholera and the request that Arab countries which have reservations about doing so reconsider their reservations.

2. It is recommended that arriving persons be given health surveillance cards and visit any health center or medical clinic if any symptoms of illness, such as diarrhea or vomiting, manifest themselves in their gastro-intestinal tracts and that Arab aviation and shipping companies be requested to print these cards and give them to passengers coming from afflicted countries to fill out during the trip.

3. A. That organic antidotes not be given to travelers coming from afflicted countries (Egypt, Libya, Bahrain and Tunisia expressed reservations about this paragraph).

Countries expressing reservations must stress surveillance of individuals who take organic antidotes for a period of from 3 to 5 days.

B. Organic antidotes must not be given to transit passengers.

### III. Diarrhea Cases

In order to make it possible to discover initial cholera cases, one must be attentive to diarrhea cases and conduct the necessary laboratory examinations to determine their causes.

### IV. Universal Inoculation Against Cholera

The commission decided not to resort to universal inoculation against cholera as a measure to prevent the spread of the disease. Rather, it is necessary to concentrate on other preventive measures such as correction of the environment and health indoctrination through all media.

### V. Preventive Measures To Be Adopted With Regard to Foodstuffs in the Possession of Passengers Coming From Afflicted Areas

A. Foods canned and sealed firmly by mechanical means may enter.

B. Other foodstuffs, including vegetables, fruit, water and nonalcoholic beverages will be prohibited from entering.

### VI. Preventive Measures To Be Adopted With Respect to Foodstuffs Imported From Afflicted Areas

1. Foodstuffs canned and completely sealed by mechanical means may enter.

2. Sterilized carbonated mineral water which has been bottled may enter, provided it is accompanied by a health certificate approved by the ministry of health in the country of origin.

3. Milk and dairy products which have not been pasteurized or sterilized may not enter.

4. Uncanned salted fish and fresh shellfish may not enter.

5. Fresh dates and figs may not enter.

6. Vegetables and fruit may be imported by recommendation of the health authorities, if citizens are notified of the need to wash and clean them before consumption. (Egypt, the Yemen Arab Republic, Libya and the Sudan expressed reservations about this paragraph.)

#### The Second Resolution

1. That attention be given to correcting the environment, in cooperation with other entities concerned, and that Arab governments be requested to allocate budgets to investigate this objective over a short and long range, especially as regards the provision of potable water and the elimination of solid and liquid wastes.
2. That the proper application of international health laws bearing on means of air and marine transport and the elimination by sound sanitary means of refuse left behind in them be assured.

#### The Third Resolution

Expertise and information will be exchanged in the area of diagnosis, treatment and campaigns against contagious diseases through scientific symposia and visits to specialists in Arab countries.

#### The Fourth Resolution

Arab governments request that health aid be provided to the Palestinian Red Crescent Society, the Lebanese Ministry of Health, and the Somali Ministry of Health.

#### The Fifth Resolution

That a permanent national Arab commission be formed to combat epidemics in Arab countries, consisting of experts specializing in this field from Syria, Iraq, Egypt, Jordan and Saudi Arabia, on condition that members of this commission be appointed by the Council of Arab Ministers of Health and that the commission promulgate its bylaws and statute of activities at its first meeting.

#### The Sixth Resolution

1. In view of the circumstances peculiar to the Kingdom of Saudi Arabia, because of the season of the great Islamic convocation, the pilgrimage season, the kingdom is given the discretion to adopt measures and requirements which it considers appropriate, to help protect this convocation from the infiltration of contagious diseases and their spread among pilgrims and consequently to other countries, taking international health regulations into consideration.
2. Arab ministries of health are recommended to include specialists in preventive medicine in medical delegations to the pilgrimage.
3. Arab medical delegations accompanying pilgrims should cooperate with Saudi health authorities, in accordance with Saudi statutes.

### The Seventh Resolution

Arab ministries of health which are to attend the meetings of Regional Commission A for the Eastern Mediterranean, to be held in the state of Kuwait in the month of October of this year, are requested to include among members of their delegations persons responsible for preventive medicine in their ministries, in order to follow up on these resolutions.

### EFFORTS INCREASED TO PREVENT CHOLERA ON WEST BANK

Tel Aviv AL HAMISHMAR in Hebrew 18 Sep 77 p 2

[Text] A resident of the village Bit-Likia in the vicinity of Ramallah has been diagnosed as suffering from cholera. This brings the number of those stricken with cholera to three. A correspondent for ITIM in Judea and Samaria reports that the first case of cholera was a woman from the village of Karta near Nablus, and that she was released Saturday from the hospital after a complete recovery.

The second victim, from the region of Jenin, still remains in the hospital at Nablus. Also released from the hospital was an American tourist who arrived from Jordan, after it was proven that he did not have the disease.

At the same time, it is noted that there are still a number of people in West Bank hospitals who are suspected of suffering from the disease, and they are being thoroughly examined.

At meetings of the health authorities and people from the military government held at the end of the week, it was decided not to close the Jordan River bridges, but rather to increase measures to prevent the spread of the disease.

It was also learned that West Bank health authorities have decided not to inoculate residents of the West Bank. In their opinion, the effectiveness of the inoculation is low. Doctors say that it is possible that among those who are inoculated may be some who already are suffering from the disease, but not at advanced stages. The inoculation may retard the symptoms of cholera, so that the stricken individuals will continue to go about their normal routine, but they will serve as carriers of the micro-organism of the disease.

In Saudi Arabia, about 5,000 pilgrims from the West Bank and the Gaza Strip will be inoculated. They have arrived in recent months to visit the sacred cities of Islam.

Health authorities say that they have had great success in their war against cholera on the West Bank. In contrast to other neighboring countries, local authorities have been aiding health authorities in every city

and village on the West Bank in educating the population in measures to be taken in each home and shop to prevent the spread of the disease.

The local Arab press has called upon all residents to cooperate with the military government authorities to contain the spread of this severe disease.

At the Allenby and Adam (Damia) bridges, all travelers arriving from neighboring countries are questioned as to whether they are suffering from vomiting or diarrhea. All those who indicate that they are suffering from these symptoms, which are the outstanding symptoms of cholera, are rushed to isolation wards in local hospitals throughout the West Bank, where they are held as potential cases of the disease. Only after thorough examinations are they released.

#### BRAZIL

##### GOVERNMENT PLANS FOR POSSIBLE CHOLERA OUTBREAK

Sao Paulo O ESTADO DE SAO PAULO in Portuguese 21 Sep 77 p 16

[Text] The Ministry of Health has an allocation of 2.5 million cruzeiros for the task of preventing cholera throughout Brazil, an effort intensified by the warning issued by the Cholera Control Commission to the Epidemiological Control Bodies and by the Port Health Service with regard to reactivating health protection activities at the ports, airports and frontier localities. The president of the commission, Luis Carlos Moreira de Souza, national health secretary, announced during a meeting held yesterday in Rio that the government is prepared to adopt preventive measures and to act in the event of an outbreak.

The commission recommended that the state bodies reorganize, with a view to immediate use, the emergency teams made up of epidemiologists, sanitary engineers, doctors, nurses and the necessary auxiliary personnel. Apart from the medical components, according to Luis Carlos Moreira, these teams have personnel trained in using emergency units to provide purified (chlorinated) water and the removal and processing of waste and used water. There are compact units for this purpose in Manaus, Belem, Fortaleza, Recife, Salvador, Rio de Janeiro, Sao Paulo, Belo Horizonte, Curitiba and Porto Alegre. There are two more units in Rio with a greater capacity, ready for dispatch to wherever they may be needed.

Vaccination continued yesterday at the Galeao Airport, and according to the morning report, the number handled at the health unit was larger than that recorded on the first day. At 1100 hours, an hour before the health workers' lunch period, the first vaccine shipment (2,500 doses) had already been exhausted. In the afternoon, however, with the arrival of

an additional 2,500 doses, the health station was moved from the B sector in the departure lobby, right in the center of the passenger terminal, to a room in the internal sector, on the first floor of sector C, between the apron where the aircraft are parked and the baggage sorting area, a location to which access is difficult.

No official of the port health service could say who ordered the change of location, but everyone agreed that this happened after a visit paid by Rio de Janeiro Ports, Airports and Frontiers Health Inspector Arnoldo Beiro, who is said to have met with ARSA officials.

Apart from the confusion and the many inquiries caused by the change of the location of the vaccination station, a number of employees failed to obtain their doses of vaccine because now, in order to gain access to the area where the health workers are set up, those working in the outer areas must obtain special authorization from the airport security division.

Bacteriologist Gil Pessoa, of the Adolfo Lutz Institute, who recently studied the problem in Bangladesh, where a serious outbreak has occurred, and who was a member of the work group for the prevention of the disease 4 years ago, made the statement in Sao Paulo that the possibility of an outbreak of cholera in Brazil is very remote. The last outbreak of cholera in this country occurred in 1893, he said, and despite the fact that since 1961 various countries in Asia, Africa and Europe have been affected by the disease, South America has remained free of this problem.

The Ministry of Health coordinator in the southeast and south regions met yesterday in Curitiba with doctors from the Secretariat of Health to discuss measures for controlling the disease. It was decided that a special supervisory plan will be put into effect at the Foz do Iguacu International Airport and the port of Paranagua. A meeting of the State Health Commission is scheduled for this evening in Recife.

Rio de Janeiro O GLOBO in Portuguese 22 Sep 77 p 10

[Text] Brasilia. As a measure for the prevention of major outbreaks of cholera should the disease reach Brazil, the SEMA [Special Secretariat for the Environment] will suggest to the Ministry of Health in the next few days that polluted beaches be closed. The director of the SEMA, Paulo Nogueira Neto, stated yesterday that the risk of transmitting cholera by means of polluted water is very great, and he mentioned as possibilities for immediate closing the Ramos Beach in Rio, which he termed "the national symbol of beach pollution," and the Praia Grande Beaches in Santos, Sao Paulo.

According to Nogueira Neto, the risk that cholera will be transmitted by means of polluted water is much more serious in places where sanitation is unsystematic, as is the case with hepatitis, typhoid fever, mycosis, dysentery and various kinds of throat and inner ear problems.

The closing of the beaches is the responsibility of the state and municipal governments. The SEMA, according to Nogueira Neto, can only warn of the dangers of pollution. He stated that he is mainly concerned about the possibility that cholera will reach Brazil in the summer period, when the number of tourists on the beaches increases by the same proportion as do the pollution levels.

#### CYPRUS

##### CHOLERA CASE REPORTED IN TURKISH REGION

Nicosia BOZKURT in Turkish 29 Sep 77 p 1 NC

[Article by Esref Cetinel]

[Summary] Magusa [Famagusta]--The first case of cholera in Magusa was reported yesterday and a tourist suffering from cholera was taken to the Magusa hospital for treatment. Despite the fact that the cholera epidemic has reached dangerous proportions in the Middle East, no preventive measures have been taken in Magusa, especially in the port area.

Following the reports about cholera in Magusa, the inhabitants of the town have begun running to the hospital in panic for anticholera vaccine shots.

Bayrak Radio [Clandestine] in Turkish to Cyprus 1030 GMT 29 Sep 77 TA

[Text] The Ministry of Health of the Turkish Federated State of Cyprus today formally denied reports that there have been cholera cases in Gazi Magosa [Famagusta]. An announcement by the ministry says that the case reported in Gazi Magosa was not cholera but intestinal infection, and that the patient has been quarantined and is being treated.

The announcement also says that there is no need for an inoculation campaign in the federated state. It says that inoculation certificates are being demanded from those arriving in the federated state and that there are enough stocks of vaccine for an inoculation campaign should the need arise.

Nicosia O FILELEVTHEROS in Greek 6 Oct 77 p 10 NC

[Text] Larnaca, 5 Oct--According to reports leaking from the Turkish-held area of Famagusta, a Turkish Cypriot died of cholera this morning.

According to these reports, the Turkish Cypriot is a young student who was studying in Turkey and who came to Cyprus to visit his family. He was taken to the Famagusta hospital 10 days ago.

The Turkish Cypriot medical services tried to keep this case secret but as soon as other Turkish Cypriots who were receiving treatment at the hospital learned what had actually happened, they told their families and left the hospital immediately.

Reports say that there are another five or six cholera cases in the Turkish-held area of Famagusta.

#### IRAN

##### EL TOR VIBRIO ON DECLINE

Teheran TEHRAN JOURNAL in English 6 Oct 77 p 3

[Text] Tehran--Two leading Tehran hospital doctors yesterday reported that El Tor, the cholera-like disease which had spread in Tehran and other areas of the country, was on the decline. They attributed this to a considerable cooling of the weather.

Dr. Mobasser, resident doctor of Khazaneh Hospital and Dr. Nabavi, head of the Firouzabadi Hospital, said in separate interviews that the number of patients suffering from diarrhoea and nausea was declining rapidly.

They said the cholera-like disease had been present in Iran for the past eight years but Iran never really had cholera. During the period that this disease was prevalent in the country both the Khazaneh and the Firouzabadi Hospitals had ample facilities to receive and treat the patients.

"From the beginning of El Tor, we have not come across any case which can really be said to be a cholera victim," they said. El Tor, Dr. Mobasser and Dr. Nabavi said, attacked the country once every few years and obviously anyone suffering from a bout of diarrhoea and nausea thinks that he might have contracted cholera and reports at once for medical help.

This year, they said, the hospitals had also received a number of patients suffering from these symptoms, but now with the drop in temperature no new cases had been received. At present there were only a limited number of patients suffering from this disease in their two hospitals, they said. They added that the patients were recovering satisfactorily.

Meanwhile, Dr. Pourrahimi, head of the Infectious Diseases Ward of the Khazaneh Hospital, told an ETTELA'AT reporter that everyone should wash all vegetables and fruit before eating them. The disease, he said can easily be prevented by precautionary measures.

IRAQ

DISCOVERY OF SEVEN NEW CHOLERA CASES REPORTED

Baghdad INA in Arabic 1120 GMT 6 Oct 77 JN

[Text] Baghdad, 6 Oct--During the past 24 hours health authorities discovered seven new cases of cholera in Baghdad, Wasit and Al-Muthannah districts. This raises the total number of cholera cases to 80 since the discovery of the first case on 20 September. One patient has died from the disease.

Sources at the Public Health Care Department [of the Health Ministry] have stated that the condition of all the cholera patients is good and most patients are leaving hospitals with no problems after being cured.

JORDAN

REPORTS ON CHOLERA SITUATION IN JORDAN

Amman Domestic Service in Arabic 1200 GMT 29 Sep 77 JN

[Text] Health Ministry sources said today that two new cholera cases have occurred in the past 24 hours, one in the village of 'Al'Al in the governorate of Irbid and the second in the city of Ar-Rusayfah. No deaths have been reported, and 400 citizens have left hospitals. There are seven citizens under treatment in hospitals.

Amman Domestic Service in Arabic 1600 GMT 2 Oct 77 JN

[Excerpt] A Health Ministry spokesman has stated that two cases of cholera occurred during the past 24 hours, one in Madaba and one in al-Kafrayn. The spokesman said that the total number of cases has now reached 417, of which 400 have left hospitals. No deaths have occurred from the disease.

Amman Domestic Service in Arabic 1600 GMT 4 Oct 77 JN

[Text] A responsible source in the Health Ministry has announced that no cholera cases have been discovered in the kingdom during the past 24 hours. He said that there are still 16 people who are under treatment in hospitals.

Amman Domestic Service in Arabic 1600 GMT 5 Oct 77 JN

[Text] A responsible source in the Health Ministry today announced the discovery of three new cholera cases in the kingdom during the past 24 hours. The source said that there are 14 cases under treatment in Health Ministry hospitals.

Amman Domestic Service in Arabic 1200 GMT 6 Oct 77 JN

[Text] The Health Ministry announced today that no new cholera cases were reported in Jordan during the past 24 hours. The ministry also announced that only 13 cholera patients are still hospitalized in the country.

Amman Domestic Service in Arabic 1600 GMT 10 Oct 77 JN

[Text] Four persons have been discharged from hospitals in the past 24 hours after recovering from cholera. Health Ministry sources have stated that six persons are still under treatment. The sources added that no new cholera cases have been discovered in the kingdom for the 5th consecutive day.

Amman JNA in Arabic 1515 GMT 11 Oct 77 JN

[Text] Amman, 11 Oct--Health Ministry sources today announced that two new cholera cases have been discovered in Amman in the past 24 hours, following 5 days without any. The sources said that two persons of the six in the hospital have been discharged in the past 24 hours after recovering from the disease.

LAOS

#### CHOLERA, SMALLPOX OUTBREAKS

Vientiane KHAOSAN PATHET LAO in Lao 6 Aug 77 p A 4

[Text] The Khammouan Province Public Health Office recently sent a mobile medical team fully equipped with medicines to suppress cholera and smallpox which had broken out in Meuang [district] Kham Keut, Khammouan along the border between Xieng Khouang and Khammouan provinces. Upon their arrival the medical team worked determinedly with local doctors to suppress these diseases, and completely eliminated them. They were able to save the lives of over 100 seriously ill patients. The team is currently continuing to lecture on ways of preventing further outbreaks of these diseases.

## HOUA PHAN PROVINCE DISEASE RATE DROPS

Vientiane KHAOSAN PATHET LAO in Lao 12 Aug 77 p A 2

[Text] The Houa Phan Province Public Health Office recently sent a mobile medical team to serve farmers in various production areas throughout the province in order to give the people the strength to participate in increasing this year's production. The tireless support of these fraternal medical workers improved the existing sense of satisfaction and patriotism. The number of sick has steadily dropped; in particular, malaria and cholera have been largely contained.

## CHOLERA PRECAUTIONS

Vientiane Domestic Service in Lao 0000 GMT 18 Sep 77 BK

[Text] The sanitation and contagious disease control department recently announced that in the wake of a cholera outbreak in the Middle East a number of people have died. To prevent such an epidemic in Laos, the department asks all cadres, civil servants and people to take precautionary measures in their eating, drinking and hygienic habits, including eradicating flies, burying all rotten food, and eating only well-cooked food. In addition, all immigration officials are also instructed to check thoroughly and strictly all foreigners entering and passing through Laos for their vaccination certificates. All Lao citizens are also instructed to receive cholera vaccinations from all local health clinics and hospitals.

## LEBANON

### MEASURES TO FIGHT CHOLERA

Beirut AL-HURRIYAH in Arabic 12 Sep 77 pp 14-15

[Article by Zuhayr Hawwari]

[Excerpts] The minister of national health, Dr Ibrahim Shu'aytu, has "calmed" the citizens after they became alarmed about the cholera epidemic. He said: "There is no 100 percent effective treatment for cholera. Therefore 50 to 60 percent of those who are stricken with this disease die even if they are treated!"

He added that the Ministry of National Health had turned to WHO for advice about vaccination. WHO did not specifically counsel us to do it, because its effectiveness is not complete and is limited to 30 percent. The minister of health, Dr Shu'aytu, made a number of statements when the cholera epidemic was spreading in Syria, in which he announced that the

entire apparatus of the Ministry of Health had been called into the fight and this apparatus has remained in utmost readiness in the northern and eastern border regions, in expectation of the cholera [epidemic] in order to stop it while it is hopeless and unsuccessful [sic]. But the anticipation of epidemics is not so simple, as Minister Ibrahim Shu'aytu knows, especially when it is possible for the disease to reach Lebanon across the overland road which links Lebanon and Syria in the provinces of al-Shamal and al-Biqa'. It has become a true state of affairs because of the daily travel between the two countries by their citizens, and to the extensive social intercourse.

The likelihood of the spread of this epidemic in Lebanon comes at a time when the Ministry of National Health is engaged in "great activity" on the level of nonstop meetings between Minister Shu'aytu and the director general of the ministry, Dr Robert Sa'adah, and the director of prophylaxis, Dr Muhammad Mihna. These meetings actually produced "decisive and resolute" decisions. These decisions followed in succession as follows: A denial of news of the spread of the disease, sometimes with statements issued by the minister who would thereby refute rumors started by the envious and the faultfinders, and sometimes through the pertinent utterances of the heads of the health agencies in the regions which face Syrian land in the north and east. Then successive resolutions compelled everyone traveling to Lebanon from Damascus to take four tetracycline pills immediately upon entering Lebanese soil, with the condition that he carry with him eight pills to be taken thereafter. The ministry has furthered its work, and increased the amount to 18 pills. This is in addition to directives summed up in--as Minister Shu'aytu said in one word: cleanliness, cleanliness, cleanliness....

The director of health prophylaxis in the Ministry of Health, Dr Muhammad Mihna, did not disagree with the minister's decisions except in details. He for his part denied rumors. The motivation for his visits to the regions in which cases [of the disease] are likely to appear has been to take the steps necessary to fight this disease. Dr Mihna visited the provinces of al-Shamal and al-Biqa', in the course of which he met with the heads of the health agencies in the two provinces. Dr Mihna added:

"The duties of the citizens at this stage may be summed up in one word: 'cleanliness,' because this disease is unable to cross any city, any home or any door if it is clean. In this connection what is required is emphasis on the following:

"1. Attention to chlorine by those responsible for drinking water and its purification. I believe that this matter has been assured lately in all the water agencies, especially in the water agencies of 'Ayn al-Dalabah and al-Baruk.

"2. Requesting the municipalities to gather their garbage and not leave it piled up in the roads. I believe here that the citizens must help in

this in order to prevent the spread of flies and rats which are instrumental in the spread of this disease.

"3. Requesting the citizens to bind themselves to cleanliness inside and outside their homes.

"4. Requesting people not to drink questionable soft drinks or buzah.

"5. Placing vegetables and fruits in boiling water for 30 seconds.

"6. Washing the hands before and after eating."

Mihna continued: "Here I want to give assurances in reply to those who are requesting vaccination, that scientific experiments have demonstrated the uselessness of vaccination against cholera and all the intestinal diseases."

He concluded his statement, saying: "I am very optimistic. I believe that the cholera epidemic will not enter Lebanon."

Immediately after these two visits the governors of the two regions issued emphatic directives for the removal of garbage from the roads and public squares, for the necessity of burying or burning garbage far from residential centers, and for the abolition of garbage cans placed in the roads. They appealed to the citizens to place their garbage in nylon bags, well-closed, to be kept inside homes and businesses, and to be thrown out only at specified times at the places designated for it. They also requested the municipalities to limit the garbage collection program, to prevent the flow of brackish water over public roads, and to deny permission to leave leftover building materials on the public roads in order to prevent the spread of dust and filth. The two governors called for making the citizens aware of the necessity of boiling drinking water before using it, and washing fruits and vegetables with germicidal soap.

#### Cholera or Something Else

Cholera is one of the highly contagious infectious diseases to which Lebanon is frequently exposed. It is an epidemic disease which originates abroad, and generally arrives once every 3 to 4 years. In the middle of October 1970 Lebanon was exposed to this epidemic disease. At that time the Ministry of National Health took a number of decisive steps which appear, through observation of the most prominent of them in scope, to differ from the steps presently being taken, except when the Ministry of National Health, in the time of Minister Shu'aytu, was among the supporters of birth control by opening the door wide in the face of the epidemic. In 1970 decisive orders were issued to customs officials to confiscate everything that could be described as edible matter: vegetables, fruit, sweets, almonds and nuts...and they forbade the importation of vegetables and fruit

in view of the likelihood of transporting the infection with them. Steps were also taken on the level of the movement of traffic between Lebanon and Syria, through which any traveler into Lebanon who did not carry a health certificate stating that he had submitted to an anticholera vaccination was compelled to submit to a vaccination; and anyone on whom the signs of affliction with the disease appeared in spite of his recent vaccination was returned whence he came, or was confined in quarantine until he had recovered from the disease. These measures are followed in all parts of the countries of the world.

However, the vaccination operation with which the ministry confronted the disease did not entirely prevent it, and dozens of new cases appeared despite the fact that Ministry of Health vehicles traveled through most of the villages, quarters and streets in a vaccination operation which was accomplished on the basis of a contribution from WHO.

The yearly reports issued by the Ministry of National Health indicate that in 1961 the ministry carried out the distribution of 8,542 vaccinations to protect against this epidemic disease. In 1962 the number of vaccinations which were distributed dropped to only 6,914. In 1963 this reduction reached an unreal limit, and it was limited to only 442 [vaccinations]. In 1964 the rate rose, but it did not reach that of the previous year, with the distribution of 6,172 doses. In 1965 after the news of the likelihood that Lebanon would be exposed to this epidemic, the number of vaccinations rose, reaching 13,624. The epidemic did in fact arrive, but in the following year, after it had made the rounds, and attacked a number of countries in the region. In cooperation with WHO, the most extensive vaccination campaign Lebanon has known was carried out against this epidemic, and in 1966 the number of vaccinations that were distributed came to 241,991 doses. This figure also remained high in the following year, when it came to 187,681 vaccinations. In 1968 the number of vaccinations which were distributed decreased gradually to reach a level proportionate to the state's concern with prophylactic medicine, and it did not exceed 9,004 doses. During the following years it remained at the same rate with the exception of 1970, when a national vaccination campaign was undertaken in cooperation with WHO.

#### Cleanliness

In that year the minister of national health, Dr Emil Baytar, posed the following question: "What causes the spread of epidemics in Lebanon, and why do they reach a dangerous point in short periods of time, in spite of medical progress?" In order to answer this question scientifically he got in touch with WHO, requesting them to send a delegation of their health experts to study the matter. The expedition actually spent a number of months in our land, after which they left with a study of the utmost importance, in which they said that not only does Lebanon receive epidemic diseases which enter it from outside its borders, but within it there are significant epidemic disease breeding centers. The delegation determined the following two centers:

1. Drinking water, which the study considers one of the most important means of transmitting the microbes of numerous terrible diseases, such as cholera.

2. The drainage of used water and the leakage from garbage, because the leakage from it is considered one of the most important health problems facing the country. It ferments and becomes a breeding ground for intestinal diseases with the germs it produces, and it encourages the spread of insects, mice and rats.

In concluding this study the delegation devised a detailed project, implementation of which would be carried out in the course of 3 years, with the goal of purifying drinking water and constructing a sanitary network of sewers which would be equipped with recycling stations. The delegation estimated the cost of the project at \$1,086,500, to the source of which the Lebanese Government would contribute the sum of \$469,700 as the salaries of Lebanese employees, the expense of their training, and the cost of offices and special studies. Minister Emil al-Baytar did in fact carry the project to the Council of Ministers, where he presented it at the meeting which was held in Ahdan on Wednesday, 4 August 1971, and the Council of Ministers agreed to it. But the resignation of the minister of health, Dr al-Baytar, on the heels of a victorious campaign against him by drug merchants, induced the government to ignore the project, and it was not implemented. It then did not take long before it was buried--like many other projects--in the ministry's files.

We have found it appropriate to return to this project, especially because the Ministry of Health has announced that all its apparatus and the apparatus of the municipalities along with the workers of the municipalities have been called into the fight to collect garbage from the streets and the city quarters so that this garbage does not create a breeding ground for the growth and increase of this disease. But "read and rejoice, look and be sad"--the heaps of garbage are still piled up, and a whole world of insects and germs--unperceived by man--lives happily in them. Radio Lebanon broadcasting from Beirut does not know that there is a campaign under way by the Ministry of Health which has a part in its success. Rather, its developing programs are still the same as in the past, with the addition of so-and-so singing the words of so-and-so and the melodies of someone else. Perhaps the clearly stated coincidence is that at a time in which the Ministry of Health is calling on the citizens to aim for cleanliness, the municipalities are ignoring the situation and the ordinary demands of their workers while the cholera epidemic is knocking at the doors of the country along a distance of 350 km, the length of the eastern and northern borders of Lebanon.

#### The Opinion of the Physicians

Now what is the opinion of the physicians with regard to the measures of the Ministry of Health?

Dr Khalil Khuri, a specialist in diseases of the liver and digestive system, says about the fight against this disease that tetracycline may help in putting an end to the cholera epidemic, but it is not sufficient. Tetracycline is given at the onset of the illness, and it destroys the bacterium; however, if the bacterium returns to the individual it will overcome him.

The solution? Dr Khuri says that vaccinating the majority of the people will prevent the epidemic from spreading. However, vaccination does not give immunity to the individual, but is a prophylaxis for society facing this individual if he becomes stricken.

Dr 'Ali Ghayth, a specialist in internal diseases and surgery described how cholera originates and spreads and listed its symptoms. "Cholera," he said, "is considered one of the infectious diseases most dangerous to human life, and is fatal in 50 to 90 percent of the cases." "The duration of the illness is short, not exceeding 5 to 7 days, in the course of which death comes if there is no treatment."

#### Means To Protect Against Cholera?

1. Cholera is a disease about which public announcement is compulsory, not only for the doctor, but for the nations as well, in accordance with world medical statute which makes it compulsory to communicate with the WHO for the sake of undertaking the important task of confining it to the national level.
2. Quarantining the victim in a special hospital for epidemic diseases. That is because of the danger of direct transmission of the disease.
3. Because of the danger of the transmission of the bacterium from the belongings of the victim, it is necessary to sterilize them by means of conventional germicidal substances.
4. In the case of doubt, processing discharge cultures in order to confirm the lack or presence of the disease.
5. The precautionary measures necessary to be adopted, namely sterilization of water; boiling vegetables, fruit and milk; cleanliness in the kitchen; washing the hands; hunting down insects; avoidance of visiting public and private swimming pools, and the sea in general; spraying insecticides; insuring cleanliness in the streets and quarters; and filling up the swamps.

#### And on the Public Level?

Dr Muhammad Diyab says: "The fundamental issue which must be attended to in this connection is mass vaccination, because individual vaccination does not lead to results. As for what the ministry says, it is for the sake of mollifying itself for justifying impotence."

Dr Ghayth gives assurances that it has been made clear to WHO that the immunity provided by inoculation is 100 percent if it is done immediately upon hearing of the spread of the disease, either in the country itself or in a neighboring country.

#### GOVERNMENT ANTICHLERA CAMPAIGN CRITICIZED

Beirut AL-HURRIYAH in Arabic 26 Sep 77 p 15

[Excerpt] Cholera epidemic cases are occurring in rapid succession, and these cases are breaking out north and south, east and west, without Ministry of Public Health officials conceiving of any approaches to modify the previous policy they followed in "treatment"--which led to the entry of this epidemic into Lebanon. This matter assumes additional gravity when we realize that we are at the beginning of the academic year and that numerous predictions have it that this will be delayed for 1 month in the fear that the disease will spread throughout the schools and threaten students and teachers.

In fact, meetings among officials have proliferated. The most conspicuous of these was the meeting chaired by President Ilyas Sarkis and attended by Ibrahim Shu'aytu, minister of public health, Dr Robert Sa'adah, director general of the ministry, Professor Nasif, dean of the faculty of medicine at the American University, and Professor Ghusayn from the faculty of medicine at the University of St Joseph. This was devoted to a review of health conditions in the country and the conditions of hospitals. Although President Sarkis stressed the need to round out hospital staffs so that they can provide treatment and sound public health services for citizens at this meeting, this emphasis was not transformed into practical measures at variance with the real situation the citizens are suffering from, and the officials' appeals continued to mention the citizens' duties, while the officials feigned ignorance of the duties of the authorities as regards guaranteeing public sanitation and necessary inoculations as a preventive method for society. Nor was it at variance with the position taken by hospital owners who refused to make contracts with the Ministry of Health from the outset and subsequently refrained from accepting cases whose conditions were dubious, such as food poisoning cases, which occur as a result of citizens' consuming rotten food or food exposed to germs, are no less serious than the cholera epidemic, and lead to death if they are not treated quickly. The conditions the hospital owners set forth were basically financial ones, requiring that the Ministry of Public Health lease the hospitals for a period of no less than 3 months. Although this problem has been partially solved in the capital by a contract with the al-Turk Hospital, this problem has gained the prominence it merits in regions lacking government hospitals, such as the mountains, al-Biqa', and remote districts like 'Akkar. This is taking place in the context of a lack of hospitals and preventive medical centers, although the Ministry of Public Health has declared that it has formed teams composed of health engineers, doctors and aides equipped to intervene anywhere.

Perhaps what inspires astonishment in the officials' appeals to the citizens to abide by public health principles is not only the local and municipal authorities' pretended ignorance of their duties, but also the disappearance of cleansers and sterilizing medicines to be placed in the water with which fruit and vegetables usually consumed raw are washed, to guarantee the necessary protection against the occurrence of epidemics. These medicines have disappeared from pharmacies, and some have appeared for sale at fantastic prices, several times higher than their original prices. Warnings by the minister of public health, Dr Ibrahim Shu'aytu, to the Drug Importers' Union and the Pharmacists' Union have vanished into thin air. He has not declared the contents of his well-known threats to take drastic measures and these have not come to any better end than his warnings. Meanwhile, the media campaign, which is aimed at absolving the officials in the eyes of citizens who have been afflicted with this epidemic, continues with the issuance of further statements on the dangers of inoculation and its inability to combat this epidemic. One must also bear in mind that the Ministry of Public Health has adopted a decision which is considered contradictory to all the statements officials have made. The ministry has directed advice to sanitation workers in the municipalities to wear special clothing, gloves on their hands and shoes to protect themselves from germs, in view of the fact that their trade exposes them to affliction from many intestinal diseases. It did not take long before it realized that diseases are not combated with advice, and, following a meeting held in the headquarters of the Central Laboratory, in which Dr Sa'adah and representatives of the popular societies, the Municipality of Beirut, and the 'Ayn al-Dalbah Water Department participated, it adopted a decision to the effect that garbage collectors and sewage workers were to be inoculated. Inoculations were actually sent to the municipalities so they could inoculate their workers. The Ministry of Health continued to content itself with approving health directives, the merchants of disease took their opportunity, individual inoculation activities began to accelerate, and inoculation costs rose to 50 pounds on occasion. It is widely known that individual inoculation will not guarantee personal protection, in view of the fact that the country will remain exposed to a spread of the epidemic.

If the means for combating cholera remain as they are, without attention to correcting the environmental circumstances in which the citizen is living with regard to housing, public sanitation and the standard of living, the Arab region will be threatened with becoming a pestilential disease-spreading abyss, especially because epidemics, which usually spread in the form of waves, have become endemic to the region. This will threaten to turn the region into another Far East, spreading cholera and other diseases from one end of the globe to the other every year. Perhaps strengthening this belief is the competent bodies' reliance on nature in combating epidemics. Dr Muhammad Muhanna, director of preventive medicine in the Ministry of Public Health, was not embarrassed to say, "I am optimistic, with the approach of the rains, because the disappearance of the heat wave and the advent of the rains will eliminate the germs and

diminish the possibility of spread of epidemics." While waiting for the rains, the promises of effective campaigning will remain false promises!

#### HEALTH MINISTRY SAYS LEBANON FREE OF CHOLERA

Baghdad INA in Arabic 1045 GMT 7 Oct 77 JN

[Text] Beirut, 7 Oct--The Lebanese Health Ministry has announced that Lebanon is free of cholera. The ministry added that there have been no cases reported during the past 10 days and that all previous cases have been cured. The chief of the preventive medical units has stressed the need for continued precautionary measures because the epidemic is still present in the neighboring countries.

#### NIGERIA

#### ANTICHLERA MEASURES PLANNED FOR HAJJ PERIOD

Kaduna NEW NIGERIAN in English 29 Sep 77 pp 1, 25

[Excerpt] A number of preventive measures are to be taken by the Federal Ministry of Health to protect our pilgrims from attack of cholera while in Saudi Arabia during this year's hajj.

The measures, formulated because of the serious outbreak of cholera in the Middle East countries, were tabled and discussed at a two-day meeting of the National Pilgrims' Board which ended in Kano on Tuesday.

These measures are:

- (i) that all intending pilgrims should have full course of tetracycline capsules which will be distributed at the pilgrims' camps, five days before the pilgrims' departure;
- (ii) that pilgrims would have a booster dose of cholera vaccine before boarding the aircraft;
- (iii) that intending pilgrims should be advised to boil their drinking water in Saudi Arabia and that Halozone or its substitute should be used to sterilise all drinking water;
- (iv) pilgrims would also be advised to report any symptom or sign of diarrhoea to the nearest clinic for prompt treatment, and
- (v) any pilgrim who comes in contact with another pilgrim suffering from diarrhoea should ask for precautionary treatment against cholera.

The Deputy Executive Secretary of the National Pilgrims' Board, Alhaji Umaru Bashir, said in addition to these measures, water tanks provided at the various camps in Muna and Arafat for our pilgrims would contain preventive drugs to check infection.

Alhaji Umaru Bashir then advised that those pilgrims who could afford to buy "sohan," the purified and distilled water sold in bottles, should keep drinking this type of water as it was free from germs and infection.

#### POLAND

##### PRECAUTIONS AGAINST CHOLERA EMERGENCE OUTLINED

Warsaw WTK (TYGODNIK KATOLIKOW) in Polish No 41, 9 Oct 77 pp 8-9

[Article by Zygmunt Niewinski]

[Excerpt] Despite the emergence of cholera focal points in several countries, especially in Syria, not one case of illness caused by this disease has been registered in Poland to date. Despite that, our health service was placed in a state of readiness and full preparation for undertaking preventive measures.

Health-epidemiological service stations, marked with a conspicuous yellow cross, were organized at the border crossings and at airports through which travelers from the endangered zones return to Poland. Every arrival was registered with a notation of the date of departure from the endangered zone in order to maintain medical control over him during the incubation period of the disease. The arrivals were also handed leaflets, printed in four languages, and containing a description of the symptoms which precede eventual emergence of the disease.

Persons returning from the mentioned zones were obliged to hand over food items. These were immediately decontaminated and destroyed with the exception of canned items, etc., which were in airtight packaging. Control was similarly organized at our seaports. At the land border crossings, even in the last days of August, health controls were organized with the close collaboration of the Frontier Guard (WOP) stations. All travelers conformed to the control requirements with complete understanding and no one evaded them. Recommended procedures were strictly adhered to by the travelers.

After the return of the travelers to their place of residence, the appropriate health-epidemiological stations maintain constant contact with them, asking if they have noticed any of the specified symptoms. After about a week, the health control ceases; however, the stations advise that even the slightest symptoms which might worry the persons released from control be reported.

## RHODESIA

### CHOLERA RATE DOWN; NO INCIDENCES OF BUBONIC PLAGUE

Salisbury THE RHODESIA HERALD in English 29 Sep 77 p 4

[Text] Incidences of cholera--reportedly brought into Rhodesia by terrorist infiltrators from Mozambique--had dropped dramatically after being widespread along the eastern border last year, the Secretary for Health, Dr E. Burnett-Smith, says in his annual report.

The report also says there were no incidences of bubonic plague during 1976, although in 1975 there were 66 cases, including five deaths.

All cases of cholera occurred in the first half of 1976 "with almost nothing in the second half." Dr Burnett-Smith praised the staff of the Provincial Medical Officers of Health in Mashonaland and Manicaland for bringing cholera under control in extremely difficult conditions.

Dr Burnett-Smith said the reduction in cholera "may well be attributed to the progressive effect of health education among the African people."

### CHOLERA CONCERN

Salisbury THE RHODESIA HERALD in English 30 Sep 77 p 4

[Text] Rhodesia could be faced with a very serious cholera problem within the next two months because of terrorist incursions from Mozambique, Mr Rowan Cronje, the Minister of Health, warned.

"Already we have had reports that plague has manifested itself in Mozambique," he said. "And as more and more terrorists come in we can expect them to bring their diseases with them."

The Minister, speaking during the vote for Health Committee of Supply, disclosed there were clear indications that health services in Mozambique "had collapsed."

"According to one report there are only five doctors in the whole country."

Because of the incursion of terrorists and the recent outbreak in the Middle East, cholera had become one of his main concerns.

## ROMANIA

### CHOLERA IN ROMANIA

Frankfurt/Main FRANKFURTER ALLGEMEINE in German 18 Oct 77 p 9

[Excerpt] It is said that cholera-related illnesses have occurred in Romania. Austrian television reported that tourists had passed on the information that the city of Tulcea on the Danube is practically isolated, and its population has been inoculated. Romanian news media have not circulated any corresponding reports so far.

## SAUDI ARABIA

### REPORTS ON CHOLERA SITUATION IN SAUDI ARABIA

Jiddah 'UKAZ in Arabic 13 Sep 77 p 6

[Excerpt] Following is the text of a statement issued last night by the Ministry of Health:

"The Ministry of Health declares that because of the presence of some cholera cases in neighboring countries, a case of cholera infiltrated into the kingdom by way of the city of Khaybar north of al-Medina al-Munawara. As a result of this, a number of individual cases appeared in the same area. Immediately the Ministry of Health took the preventive precautions necessary to stop infiltration of the disease and to limit its spreading. This was done in collaboration with the other concerned parties in what concerns the general health conditions and the safety of food and drink in protection for the lives of all citizens, considering that the general health condition is under complete control. All citizens are requested to cooperate with the health personnel by following the instructions which were issued concerning this matter, especially concerning personal cleanliness in order to make sure that the food and water are not contaminated. People are asked to do this for their safety. May success be granted by God."

Jiddah 'UKAZ in Arabic 19 Sep 77 p 6

[Text] In an inquiry about the stepped-up vaccination campaign carried out by health officials against cholera, which broke out in neighboring countries, 'UKAZ visited the health bureau in Jiddah and met with its director, Dr Sami Radwan, and his deputy, Dr Farid Thabit.

'UKAZ noticed the good turnout by the citizens for the vaccination campaign. The officials at the health bureau stated that the daily average

number of citizens who were vaccinated against cholera reached 6,500 persons during the first 3 days of the campaign. The daily average during the second week of the campaign reached 1,000 persons and the daily average during the week which ended on 3 September reached 1,500 persons.

Dr Sami Radwan and Dr 'Adil Thabit spoke about the responsibilities of the Jiddah health bureau and explained that among the responsibilities of the bureau is the inspection of stagnant water, lakes and garbage dumps and the submission of a daily report to the municipality in order that the necessary measures be taken.

The two doctors added, "The health bureau also inspects restaurants, soft drink companies and bakeries in order to make sure of their cleanliness and of the presence of all the necessary sanitary conditions.

"The bureau also inspects and examines the drinking water in all the systems an average of 3 times daily in order to detect the ratio of chlorine in the water. The bureau gives the correct ratio of chlorine which should be mixed with the drinking water. In the case where the ratio of chlorine is lower than that required, the bureau takes samples of water from all the systems so that they will be analyzed in order to find out their suitability for human use.

"The bureau also disinfects the house of every person who has a contagious disease and the houses of all persons who mingled with him. This is done at the request of the health quarantine which notifies the bureau that a sick person was isolated because he was stricken by a contagious disease. The bureau also takes statistics on contagious diseases for all the seasons and especially after the season of pilgrimage."

Jiddah 'UKAZ in Arabic 26 Sep 77 p 6

[Text] Al-Ta'if--Minister of Health Dr Husayn al-Jaza'iri has given 'UKAZ an exclusive statement in which he said that no new case of cholera has appeared since 4 Shawwal (18 September), specifically not in the Khaybar area, where a minor outbreak had occurred. It was combated and stopped with great effort. The total number of cholera cases amounted to just 25, only in the Khaybar area. The cause of the outbreak was traced to a Turkish national who came to Khaybar from Turkey. Some wells in the area were contaminated as a result, thus spreading cholera into certain sections. Some cases reaching the kingdom from neighboring countries were discovered and treated immediately, as were those who came in contact with them. The Ministry of Health is taking the same precautions it does yearly before and during the pilgrimage season. All such precautions should guarantee a halt to the spread of cholera. Pills effective for a week are being distributed to those coming from abroad. They have been very successful in fully checking the microbe. The minister of health expressed his thanks and appreciation for the cooperation the Health Ministry has

received from the Ministry of Municipal and Village Affairs, its municipalities in various parts of the kingdom, and fellow citizens.

#### SINGAPORE

##### MORE CHOLERA CASES REPORTED

Singapore Domestic Service in English 1130 GMT 6 Oct 77 BK

[Text] The Ministry of the Environment said another two cases of cholera were confirmed since the last case was detected on 27 September. Although the three patients have recovered, investigation by the ministry is continuing.

Singapore Domestic Service in English 1130 GMT 13 Oct 77 BK

[Text] The Environment Ministry has disclosed that two more cholera cases were confirmed in the past week. The male patients have recovered and are under observation at Middleton Hospital.

#### SYRIA

##### HEALTH MINISTRY SEES WATER POLLUTION BEHIND SPREAD OF CHOLERA

Damascus AL-BA'TH in Arabic 26 Sep 77 pp 8, 11

[Article by Ilyas Khuri]

[Text] The cholera epidemic continues to fluctuate in its place or to diminish somewhat. This is shown by the figures published daily on the movement of the disease. It averages 50 cases per day on the national level, in spite of all the hygienic measures and all procedures that have been followed to fight this epidemic and impede its spread and contain it, at least as a first step before turning to the stage of wiping it out. What is the cause of the persistence of cases, and their reaching this high number? Who is responsible, and why?

Is it the Ministry of Health, in spite of all the measures it has taken, and which has proclaimed a fight against this disease to confine it and wipe it out?

Is it the municipalities, which have so far been unable to assure the measures needed to increase cleanliness in the cities and districts of the country, and the elimination of garbage, which is one of the most important

causes of the spread of the disease and in which the contagion is transmitted?

Is it the concerned ministries which have been unable to increase the capacity of the public utilities [to provide] uncontaminated drinking water, and continuous monitoring of water used for irrigation and other purposes?

Is it the citizens who so far show an incredible indifference toward following hygienic measures and carrying out directives concerning public cleanliness?

These questions and many others turn in the mind of every citizen who is aware of the number of cases announced, and is astonished by their persistence at nearly the same level in spite of the fact that hygienic measures and the educational campaign being witnessed by the country have been underway for more than 2 months without any tangible results.

#### Is It Starting to Disappear?

We took these and other questions to Dr Yasin Miftah, director of prophylactic services in the Ministry of Health. In answer to a question most indicative of the present state of the epidemic, he said:

"The clear danger of the epidemic wave has diminished, but we cannot consider that a gage of the disappearance of the epidemic, since when the epidemic begins to disappear that does not mean that it will continue to disappear. A recurrence could happen and new cases occur, caused by the social intercourse of the citizens with victims of the disease, contact with them, and lack of binding themselves to the measures and directives" [words illegible].

One may say that the present situation is continually improving, not with respect to a diminution of the [number of] cases of the disease, but with respect to the fight against the epidemic, and the implementation of health directives on the part of all sides concerned.

#### The Ministry of Health Had Anticipated the Epidemic

I want to say here that the Ministry of Health had taken into consideration the possibility of the occurrence of the epidemic this year after it had recurred four times in the past years. As a precaution against this the Strategic Council for Public Health met at the beginning of the present year, on 20 January 1977 to be precise. During this meeting a complete study was proposed concerning the cholera epidemics which have spread through the country, and on the phased plan of the Ministry of Health to prevent the return of the disease. The plan was distributed to health agencies and to all parties concerned on 24 January 1977, that is, 5 months before the occurrence of the first case of cholera.

## The Phased Plan To Prevent the Return of Cholera

The plan included that the council study the course of the cholera epidemic during the four epidemics which struck the country in 1970, 1972, 1975 and 1976, the route of its course and the provinces which were exposed to it, and the route of its spread, of which it has been established that polluted waters and vegetables irrigated with these waters, which were eaten without being cooked, were the principal cause.

Based on this, the council agreed on a fight plan which would emphasize the maintenance of the country's cleanliness by relying on a number of principles, the most important of which were:

Vigilance in reporting suspected cases in the quickest possible time, and isolating them and treating them.

Conducting a thorough epidemiological study of the cases or suspected cases by study groups which were set up for this purpose, and cautioning those who have social intercourse with a sick individual.

Taking water samples and testing them, and strict monitoring of swimming pools and baths.

Strict sanitary monitoring of food-selling establishments, coffee houses and schools, and monitoring fruit and vegetable sellers.

Making sure of the existence of technically proper sewer lines and monitoring the procedure of garbage disposal in a good and quick way.

Undertaking health education, especially in the countryside.

A plan for the future was also proposed with the aim of preventing the return of the epidemic.

## Why Did the Measures Fail?

[Question] These measures are irreproachable, so why did they fail to halt this year's epidemic, which is considered among the worst to hit the country?

[Answer] The responsibility does not fall on the Ministry of Health alone. It is universally well-known that cholera is caused by many factors, and the Ministry of Health is taking upon itself the burden of combating it. If uncontaminated drinking water were sufficient, if the collection and strategic disposal of garbage were sufficient, if communications between the ministry and its agencies in the provinces of the country were improved and if an educational campaign for the citizens were continuously underway, the epidemic would not have taken this course.

For example, cases appeared in Germany, Great Britain and Japan, but its containment and elimination were possible because the hygienic environment and the ample public facilities in these countries help to contain the disease and eliminate the possibility of its spreading.

As for [this] country, the disease this year was distinguished by a strong bacterial virulence, that is, the severity of its activity and its [ability] to cause illness, so that it spread over practically the entire Middle East, while in previous years it was of a diminished and limited virulence, and it caused fewer cases.

We must bear in mind that our country is a hospitable country of tourism, and in addition our borders are open to every traveler. The overall environment in our country is not at the required level as far as the collection and disposal of garbage and the disposal of sewage are concerned. Also, although there is a monitored network of uncontaminated drinking water, there are many villages in Syria where drinking water is drawn from wells and [sources of] water which cannot be monitored continuously, in addition to the fact that there is no [source] of water in some villages.

#### Forty-one Cases in al-'Atibah Alone

For example, in the village of al-'Atibah in the governorate of the City of Damascus the number of recorded cases until 21 September 1977 was 41. The cause of this high figure is the lack of hygienic awareness among the inhabitants of the village. They have a clean water network but the cause of these cases among them is as follows:

1. They fill containers and jars with this water and use it for drinking. If this water should be used by an individual stricken with cholera, that would bring about the possibility that everyone who uses it will be stricken!
2. The procedure for washing fruits and vegetables: They put them in a container of water and believe that they have cleaned them, whereas the matter requires the use of running water and soap, and washing each fruit or vegetable individually.
3. Lack of ample circulation of the clean, sanitary water.
4. Lack of sufficient hygienic awareness.
5. The spread of garbage huts in the village, encouraging the presence and increase of insects which transmit the disease.

Cholera spreads when the environment is foul. In our country we do not yet have a comprehensive agreement regarding environment.

All of these causes have been conducive to the outbreak and spread of the epidemic in the present form.

#### Most of the Cases Resulted From Figs

In answer to a question about the principal cause of the spread of the disease this year, and the means of protecting against it, Dr Miftah said:

"There are two principal causes of the spread of the epidemic this year:

"1. Polluted water.

"2. Fruits and vegetables.

"There are two intermediaries which transmit the bacteria to the fruits and vegetables:

"1. Their irrigation with polluted water.

"2. Carriers of the bacteria who pick and fill these fruits and vegetables.

"Most of the cases occurred this year as a result of [contaminated] figs. Figs are not watered directly, so the bacteria cling to them. What happened is that the hands of those who picked and filled the figs were contaminated with the bacteria.

"The simple method for prevention is as follows:

"1. Only uncontaminated, chlorinated water should be drunk, or it should be boiled before drinking in the remaining districts and villages.

"2. Fruits and vegetables which are eaten raw should be washed with soap and running water. I emphasize here running water so that it removes the bacteria which are present. The citizens should not be content to 'soak' fruits and vegetables in containers.

"3. Adherence to cleanliness in their homes, and to combating flies.

"4. The necessity of washing their hands with soap and water before handling any food, and especially after leaving the toilet, should be emphasized to the citizens."

As far as the measures taken on the national level are concerned, they would have been more beneficial if they were supported under a controlled environment.

I also want to add here that this year the epidemic came at the beginning of the summer season, which contributed to the spread of the disease

because infections and intestinal inflammations increase during the summer, which consequently contribute to the lowering of the victim's resistance to the disease. In addition, the types of foods that are eaten in the summer are not found in the winter (such as figs, parsley, lettuce and mint), and flies [are more numerous] also.

The cholera bacteria can be present in the winter, but the other factors which contribute to the transmission and spread of the disease are not as abundant as they are in the summer, which contributes to the extinguishing of the epidemic.

#### REPORTS ON CHOLERA SITUATION IN SYRIA

Damascus AL-THAWRAH in Arabic 30 Aug 77 p 4

[Text] The competent public health authorities, in cooperation with other concerned agencies, mobilized all their resources and means and intensified their efforts to confront any new development in their anticholera campaign, their treatment of cholera cases and maintenance of and dedication to general sanitation throughout the whole country. At the same time, campaigns for alerting the public and investigating cholera cases on a large scale continued in all the provinces.

#### Firmer Health Controls

In the province of Dayr al-Zawr, the governor presided over a meeting of the Board of Health which issued directives to all the responsible agencies asking them to enforce the health directives throughout the province. The directives called for treating drinking water with the maximum permissible percentage of chlorine; carrying out daily microbial analysis of water sources stored in the reservoirs and using the Department of Health laboratory for this purpose; prohibiting restaurants from serving salads and green onions for their patrons; controlling the sale of vegetables by means of municipal patrols and destroying rotten vegetables; banning the sale of ice cream and other refreshments and enforcing the health conditions that should be met by the factories producing carbonated drinks.

The Board of Health also stressed the need for imposing stricter health controls on restaurants and for taking the necessary measures against owners of restaurants who fail to observe the rules of general sanitation. The Board of Health also called for imposing firmer controls on slaughterhouses in the province in order to assure observance of sanitation rules, banned swimming in the Euphrates and al-Khabur rivers and ordered the closing of swimming pools.

The Department of Health in the province of Dayr al-Zawr assigned health teams in the provincial capital and all other parts of the province to

supervise the enforcement of these directives, in cooperation with the police and municipal personnel.

#### Investigation Campaigns Continued

Meanwhile, the director of public health in Dayr al-Zawr, in a statement to a reporter of the Syrian News Agency (SNA), stressed that campaigns to detect and treat cholera cases and to alert the people were being carried out daily on a large scale and in all parts of the province.

Concluding, the director said that treatment of suspected cases was being carried out in the hospital within its available potential. The doctors and medical aides are doing their best to provide the patients with the necessary protective services.

#### Health Situation in al-Hasakah

In al-Hasakah, the governor presided over the meeting of the Board of Health in the province. The conferees discussed the health situation and the anticholera measures taken. The meeting passed a number of resolutions including the launching of a general sanitation campaign in every city and town in the province, banning swimming and closing swimming pools, banning swimming in the al-Khabur and Jaghjaghah rivers, prohibiting the sale of ice cream and colored refreshments, obligating the owners of restaurants, cafes and bars to observe rules of public sanitation and health and instructing the health patrols to issue tickets to violators and to spray public places with insecticides, on a daily basis.

The Board of Health also decided to request the Department of Health to take the necessary measures to receive cholera cases, treat the patients, launch a health education campaign, form health subcommittees in all the areas and localities of the province and to assign a member of the executive office of the health sector (in the Ba'th Party) to supervise the enforcement of the decisions.

#### Urgent and Integrated Plans

In the province of Homs, acting to implement the resolutions passed during a meeting of the command of the (Ba'th) Party branch on 28 August 1977, the leadership has started to draw up urgent and integrated plans to exterminate cholera and control its spread.

The labor federation of the province is displaying posters in the streets of the provincial capital and in factories and headquarters of companies, which show the dangers of cholera and how to treat cases in the early stage. Leaflets are being distributed in the streets for the same purpose.

Yesterday loudspeakers were also used in the factories to explain to the workers the cholera disease and its causes. The workers were urged to pay

attention to general sanitation which is considered to be an important factor in exterminating this dangerous disease.

#### Maintenance of General Sanitation

In Idlib, the Municipal Council appealed to the citizens, calling upon them to help the government of the province maintain general sanitation by observing the health rules and directives. They were warned against throwing out garbage in front of their houses or shops. The appeal came in an announcement issued by the Municipal Council and displayed in public squares, streets and gates of public places, mosques and churches. The announcement warned against violating the instructions and stressed that any violation would be treated firmly in order to protect the citizens from disease.

The secretary of the Municipal Council said that all the streets of the city had been cleaned and washed effectively and that a special committee would follow up enforcement of the instructions and take the necessary measures to keep the city clean.

#### Tartus Free of Cholera

The province of Tartus is practically free of cholera.

Yesterday the Board of Health of the province held a meeting under the chairmanship of the colonel and commander of police and acting governor of Tartus. The meeting reviewed the health situation in the province in light of the precautionary measures and arrangements taken. The Board of Health expressed its appreciation for the cooperation of the citizens with local authorities to keep the province clean and to implement the health guidelines and instructions.

The board decided to launch an insecticide spraying campaign in all the quarters of the city, to clean and wash the streets daily, to tighten health control measures and to punish violations severely.

Yesterday the director of public health presided over an enlarged meeting of all the doctors in the province. They reviewed the health situation and the medical services provided by the hospital and clinics.

#### Pooling of Resources To Combat Cholera

In Dar'a, all the resources and potentialities of public health and sanitation agencies in the province of Dar'a were mobilized and efforts were intensified to check the spread of cholera by compliance with the rules of public health and sanitation in the provincial capital and the countryside.

During a meeting held by the Board of Health of the province and presided over by Governor Mahmud Qaddur, the health programs to be put into effect

were drawn up. The presidents of the local public organizations attended the meeting.

The meeting decided to launch an insecticide spraying campaign in all parts of the province, to sterilize water sources and reservoirs, to fill up swamps and remove garbage from every place, to tighten control of sanitation around houses, in the streets, public squares, restaurants, cafes, hotels, shopping centers, market places and the vegetable market. The Board of Health would also launch a general health education campaign, using loudspeakers for this purpose, in order to warn the citizens against the dangers of the disease, to request them to observe health rules, to punish violators and to enforce the order issued by the deputy military governor, in charge of applying martial law.

Implementation of all the resolutions passed by the Board of Health has already begun. The resolutions were circulated to all the district and subdistrict heads and mayors for enforcement.

Damascus AL-THAWRAH in Arabic 3 Sep 77 pp 11-12

[Editorial by Hani al-Rahib: "Government Authorities Are Responsible for the Spread of Cholera!"]

[Text] We have heard the news about cholera, and we have seen some of its conditions. Anxiety afflicts us when we visit hospitals or cemeteries. We have heard statements pertaining to cholera from the Ministry of the Interior. The first news which we have heard bears a projection of death. The statement projects the idea of emergency regulations.

We do not know exactly why the Ministry of the Interior has sent us this severe statement. Are we an unclean people, tolerant of this calamity, negligent of the need for cleanliness? There was not a whisper of these statements 4 or 5 years ago. There wasn't a sign of cholera invading our intestines. This means that we are actually a clean people. What was it that changed, allowing cholera to come to us and invade our intestines?

What changed was that during this period, Syrian cities became just about the filthiest in the world. Under the banner of development, an oversight occurred with the regard to cleanliness. Demolition began in practically every street of every city. Would that God would have mercy on us and spare us this development. Dirt, sand and lime began to accumulate in the middle of streets, and remained there for months. Rusty iron and stones began to meet on the sidewalks--as if they had permanent residence permits. The capital and townships city councils contrived measures unprecedented in the history of civilization--from the time of Hammurabi to the year 2000. Instead of forcing the contractors to build a high wall around their demolition and construction sites in order to protect the street, houses and citizens from the effects of this work, it was decided

not to send sanitation workers to any streets on which construction is being undertaken. The pretext for this was that as regards cleanliness in the streets, the capital and townships city councils were not able to keep up with the dirt and rubbish which filled up the streets every hour. In this manner, filth and garbage accumulated next to dirt and mud, and it all ferments and disintegrates, becoming a haven for every kind of bacteria.

Whoever follows this with even the slightest concern for these startling conditions knows that they are the birthplace of cholera. This year is not unique in bearing these phenomena of civilization. Last year and the year before that were like this. We must wonder how cholera hasn't stricken every house. The piles of filth and manure grow higher month after month, and fill the air that we breathe hour after hour. The fact that half the citizens haven't died from this is proof that in actuality, the people are clean, and that warnings must be addressed to the government alone.

This corner of the newspaper AL-THAWRAH has published many urgent appeals to put an end to the filth. It has called upon responsible authorities to visit the city streets--any street. But these appeals were in vain. We implored that they not destroy the citizens' health satisfying the building contractors, and capitulating to the neglect of that duty which you pay for in hard cash. But our outcry passed, and the dust, mud and garbage remained.

Our government is truly strange. It ignores its citizens until the danger of death encircles them. The problem of construction is not the only one which destroys our health. Look at the excavations, torn up streets, and bridge construction. I implore the responsible authorities to direct me to a street which is free of all excavation so that I might offer them my apologies and regrets. They excavate a street to extend the water pipes. Six months later, the street is returned to its previous condition. In the 7th month they dig up the same street to extend sanitation services. Six months later the street is returned to its previous condition. The 7th month they again dig up the street to extend telephone wires. Six months later the street is returned to its previous condition. In the 7th month yet again the same street is torn up to permit extension of electricity. Again, 6 months later, the street is returned to its previous condition. During this time period, the population has increased, and the street must be dug up anew for the sake of water, sewer, telephone and electric services, and so forth and so on. Doesn't anyone think? Isn't there anyone who would consider that it is better to carry out the four excavations at the same time, and that to carry them out in accordance with the percentage of population growth over a 50-year period would be even better yet? Or is it that this method would not be advantageous to those contractors and their partners who undertake the excavation operations?

The minister of health has insinuated in an indirect manner that the best way to eliminate garbage would be for the residents of the street to pay street cleaners 5 pounds a day so that they will clean their streets. What a magnificent discovery! Why even have the government, then? If we undertake to manage our public affairs in this manner, then leave us and our business alone. We are capable of taking care of ourselves, on the condition that we get a rest away from the government. We will do business in our own special way with the contractors and excavators who dirty our streets. But if the responsible authorities insist on standing still, cholera will persist in striking us down. We are the ones for whom it is imperative to heed the warnings. We are obliged to demand clean streets, as well as treatment for Syrian cholera victims which is commensurate with the treatment received by fellow-sufferers who are subjects of other nations.

Amman Domestic Service in Arabic 1600 GMT 2 Oct 77 JN

[Excerpt] In Damascus, 14 new cases of cholera were announced.

Damascus SANA in Arabic 1400 GMT 4 Oct 77 JN

[Excerpts] Damascus, 4 Oct--The number of cholera cases reported today was less than that of yesterday and of previous days. Only 12 new cases were reported today in the provinces of Damascus, Aleppo, Homs, Hamah, Idlib, Latakia and Dayr al-Zawr. This compares with 15 cases reported yesterday.

The spokesman of the technical committee for combating cholera has renewed his appeal to the citizens to cooperate with health authorities and to follow the committee's instructions, particularly in maintaining cleanliness and abstaining from eating uncooked food.

Damascus SANA in Arabic 1725 GMT 5 Oct 77 JN

[Excerpt] Damascus, 5 Oct--The number of new cholera cases reported today was tangibly less than the number reported yesterday and for previous days. This confirms that the epidemic is steadily coming to an end.

Six new cases were reported today in the provinces of Damascus, Aleppo, Latakia and Dayr al-Zawr. These cases are distributed as follows: one case each in Aleppo and Dayr al-Zawr provinces and two cases each in Damascus and Latakia provinces. This compares with 12 new cases reported yesterday.

The spokesman of the technical committee for combating cholera today confirmed that for the 10th successive day there were no fatalities from

cholera. He also confirmed that there were no cases reported for the 4th day in Damascus itself.

Paris AFP in English 0947 GMT 11 Oct 77 TA

[Text] Damascus, Oct 11 (AFP)--Twenty-seven more cases of cholera have been confirmed in Syria in the last 48 hours, an official source said here today.

That brings the total number of cases reported in Syria to 2,767 since an epidemic broke out last June.

Seventy-three deaths have been attributed to cholera, but no more fatalities have been reported for about 20 days.

Damascus SANA in Arabic 1352 GMT 12 Oct 77 JN

[Excerpt] Damascus, 12 Oct--The cholera epidemic visibly retreated from Syria today compared to previous days. Only four new cases appeared today compared to 16 cases yesterday. Two of these new cases appeared in Aleppo district, one in Damascus district and one in Dayr al-Zawr.

#### TURKEY

##### REPORTS ON CHOLERA SITUATION IN TURKEY

Istanbul CUMHURIYET in Turkish 25 Aug 77 pp 1, 9

[Excerpts] CUMHURIYET News Center--Intestinal diseases, which broke out in several parts of the country at about the same time when temperatures climbed to unusually high levels and a water shortage began, appear to be spreading and taking their toll in human lives. Sivas reported 15 dead of an intestinal infection. The minister of health personally confirmed that two persons died of a similar disease in Gaziantep. Four people are reported dead in Malatya. In Ankara, reports say, one patient, a green-grocer, was placed under quarantine when his affliction was diagnosed as cholera.

Cholera is said to have spread to Turkey from Syria. There are calls for strict preventive measures, particularly in our southern provinces.

In Ankara, a greengrocer, whose disease was diagnosed as cholera, is under quarantine. A municipal official said the man, who is not identified, was "a carrier." Therefore, he said, precautionary measures were taken at his residence and place of work. Ankara Mayor Dalokay will hold a news

conference later today where he is expected to comment on the reports of an epidemic and rumors of cholera, and also announce the measures placed into effect.

Meanwhile, Ankara Governor Durmus Yalcin denied the cholera reports in a statement yesterday. However, Governor Yalcin confirmed that "an acute intestinal infection" claimed the lives of 50 children in Ankara over the past 1-year period. "Acute intestinal infection is not the name of a single ailment," the governor explained. "It is a common name for a number of diseases of the digestive system. It may refer to typhoid, para-typhoid, dysentery, infectious hepatitis, cholera, children's or summer diarrhea, enteritis, enterocolitis, or acute poisoning." According to the governor, intestinal infection cases multiplied with the onset of the unusually hot weather and the water shortage, which frequently left the capital without running water. He added, however, that the incidence of the disease was not higher than what was anticipated, nor was it any worse than what had happened in previous years during corresponding time periods.

#### Sivas Reports 15 Dead

The Anatolian News Agency reports that the type of intestinal infection in the province of Sivas is striking children and elderly people in particular, and has claimed 15 lives over the past 3 days in the village of Yigitler in the Yildizeli County.

All but 5 of the 15 dead were identified. Meanwhile, there were reports of five more deaths, attributed to the same disease, in the villages of Ayrıca, Kildin, Incetas, and Ignebey. Identities of the last five have not been determined.

At the moment, 50 patients are under quarantine at the Sivas Numune Hospital.

Two health officials, dispatched from Ankara, are conducting an investigation in the Yildizeli County and its villages.

#### In Gaziantep

According to our Gaziantep correspondent, Minister of Health and Social Aid Cengiz Gokcek has confirmed that two people died of an intestinal infection in Gaziantep and 71 are under treatment in various hospitals.

The health minister stressed that no cholera cases have been found in Gaziantep. A number of precautionary measures have been taken jointly by the Health Directorate and the Gaziantep Municipal Administration to avert a regrettable development, according to the health minister.

#### In Mardin

Our Mardin correspondent says 4 have died of an intestinal infection and 50 are under treatment.

The source of the rapidly spreading disease is said to be the sewerage in Mardin's Melekbaba, Inonu, and Tastepe districts. The pipes in the sewage system burst, but were not repaired.

Mardin Governor Rafet Kucuktiryaki said, in summary:

"It is not cholera, it is an intestinal infection. At the moment, 35 people are under treatment. We do not know yet whether the 50-year-old patient at the Melekbaba District died of cholera or an intestinal infection. An investigation is underway. Drinking water has been chlorinated. Mass immunization is continuing, but in the meanwhile, every citizen should wage a battle of his own against the disease."

Officials are trying to find, and place under quarantine, every one who recently made a visit to any of the mineral springs in other provinces.

#### In Antakya

There was a notable increase in the number of intestinal infection cases during the recent weeks in Antakya which is in the midst of a scorching hot spell.

The Anatolian News Agency says the number of patients under treatment at the Antakya State Hospital climbed to 46 over the past 15 days. Reportedly, there are many more suffering from the same disease, but they are under the care of private physicians.

#### In Kastamonu

Scorching heat and the water shortage of the past 45 days are blamed for the upsurge in the number of intestinal infection cases. A total of 100 people came to the State Hospital, the Mother and Child Health Center, and the Government Physician's Office, complaining of what was described as "an acute intestinal infection."

#### In Adana

According to our Adana bureau, cholera has already spread to Turkey from Syria where a full-blown epidemic killed numerous people. Officials agree that smugglers or smuggled dates may easily transport cholera across the border into Turkey, and they add that although extraordinary measures have been taken, there are reports of intestinal infection incidences in certain areas where sanitary conditions are not up to par.

Health Director Nevzat Arman says there have been several diarrhea cases in the city, but he insists they were pesticide poisoning. According to Dr Arman, the 11 people under treatment in the hospital are also suffering from pesticide poisoning. The health official reported that over 10,000 stool analyses have been conducted in Adana, but no cholera was found. However, he said, very strict health measures will be observed during the soon-to-begin influx of agricultural workers into the area. The plan foresees a phased admittance of agricultural workers into the Cukurova region. Workers arriving from eastern and southeastern Anatolia regions will go through a health control at the Toprakkale center and the workers' housing facilities at Ceyhan and Yarbasi. A ban on open-air sale of food and beverages, and formation of new teams to chlorinate the city's water are the other measures announced by the health director.

#### In Urfa

Urfa Health Director Dr Sitki Sener said there was a summer diarrhea outbreak in Urfa, but no cholera.

Dr Sener says the water shortage and consumption of inadequately washed vegetables and fruit are the causes of the summer diarrhea. He reported that water trucks are transporting chlorinated water to villages severely affected by the water shortage. The health official assured that Urfa's drinking water was continually treated with chlorine to keep it free of communicable diseases. Dr Sener said health officials were dispatched to villages reporting high incidences of summer diarrhea to oversee health inspection and control measures.

#### In Istanbul

There is also a rapidly spreading outbreak of intestinal infection in Istanbul. Intestinal infection and typhoid patients at the Tropical Diseases Hospital of the Social Insurances Institution are increasing in number. At present, there are 52 intestinal infection cases there, and a large number of people are coming to the hospital's polyclinics every day for medical help. Many of them are sent to other hospitals because the Tropical Diseases Hospital has only 100 beds and a small staff.

#### Typhoid

The immunization drive at the Bakirkoy County and its vicinity, which began when typhoid was reported there, will be expanded to cover Halkali also, it was announced today. The disease is said to strike children in particular. Meanwhile, Mahmut Aydin, a resident of the Cumhuriyet District at Bakirkoy, reported that his 5-year-old daughter died of an intestinal infection. Mr Aydin said his wife and other children are suffering from the same disease, and he complained of what he called "a disinterested attitude" in hospitals. He said he was never told what caused his daughter's death.

According to the officials of health facilities, there were 30 reports of typhoid over the past several days. These officials say the water shortage, water contamination, and food spoilage are the major concerns, and they warn the public that food stored in iceboxes will spoil if the icebox has not worked properly because of frequent power outages.

#### Water Shortage

The outbreak of communicable diseases and the water shortage are making things very difficult for independent municipalities. The Bayrampaşa Municipality's Kartaltepe and Yıldırım districts, with a combined population of 60,000, have been without running water for a period of close to 5 months.

The Bayrampaşa Municipal Administration is trying to meet the people's fresh water needs by transporting water into the area in fire trucks once in a couple of days. The water is used for drinking and sanitary purposes. The situation on the days of water delivery is described in reports as a mob scene. Security forces have to intervene frequently to break up fights among the residents of the districts.

To complicate matters further, power cutbacks interrupt the operation of the water pumps which conduct water into these municipalities.

Officials of independent municipalities are very much concerned that there is a likelihood of communicable diseases breaking out in their areas. To guard against it, they are overchlorinating water, and promptly closing wells that residents dig up in a desperate attempt to find water.

#### Cholera May Come

When asked for their views on the current situation in Istanbul, health officials admitted that they would not be surprised if cholera also broke out in Istanbul. That, they added, will be the start of a very grave situation. They emphasized that the communicable diseases problem as a whole can be solved by improving the infrastructure, which is a job, they say, that requires close cooperation among the Ministry of Reconstruction and Housing, the Ministry of Health and Social Aid, and municipal governments.

#### Minister Sees No Need for Alarm

The National Action Party minister of health and social aid, in his statement on the death of two people and the hospitalization of 71 others suffering from an intestinal infection, also stated that there was no cause for alarm. He said the public became anxious when reports of cholera began to circulate, but he assured that there was not a cholera epidemic. He claimed that reports of cholera in Turkey hurt tourism. "The type of intestinal infection we have here has nothing to do with cholera," he said. "Therefore, there is no cause for alarm."

ANKARA MAYOR ALLEGES COVERUP OF CHOLERA, OTHER DISEASES

Istanbul CUMHURIYET in Turkish 26 Aug 77 pp 1, 9

[Excerpts] Ankara CUMHURIYET Bureau--Vedat Dalokay, mayor of Ankara, said at his press conference yesterday (in summary):

"There is cholera in Ankara--the capital of revolutions. According to our information from the Directorate of Cemeteries, 34 children, most of them younger than 1 year, have died over the past 10 days of a stomach and intestinal disease known as 'gastroenteritis,' which is recorded on their death certificates by a physician as the cause of death. A greengrocer from Ankara has been diagnosed as a cholera carrier and placed under treatment by our Directorate of Health Affairs.

"Ankara, the capital of the nation, which is a living proof of what a defective regime and warped urbanization can do to a city, and whose residents include the king of dams, does not have sufficient electric power, does not have water, and does not have a sewage system.

"Our capital is in the grip of communicable diseases. An epidemic is underway. Authorities responsible for public health in the city, the government, and its agent in the city--the governor's office--are trying persistently to hide the facts. Our municipal government is not given any information on developments; it is by-passed.

"The Provincial Health Council has not seen any need to convene for over 2 months to discuss the problem.

"The important issue here is this: The government and the governor's office are taking on a very grave responsibility before the residents of Ankara, before the Turkish people, and finally before humanity, by hiding the facts about such a disease.

"In view of the fact that the disease is rampant all over the country, the attempts to minimize the gravity of the situation by denying the facts and by describing the disease as an ordinary intestinal infection, and to cover up the facts lest people may panic are preparing the ground for a truly dangerous situation. This is the mentality which is responsible for the deaths of 34 children over the last 10 days in Ankara.

"Instead of warning the people even at the slightest suspicion, or calling on the public to join in the fight against the disease, the government, with a primitive mentality, and under the pretext of protecting national interests, is hiding the facts. This mentality will be held accountable for the situation.

"The European press is reporting in large headlines that there is cholera in Turkey. European countries are closing their doors to Turks. This

disease, whose existence is hidden from our people and from the world is a more dangerous disease than we think, but the officials of the second Nationalist Front [NF] government are stubbornly standing by their criminal lie."

#### The NF's Official Monogram

"This capital city of ours, which rejected the second NF government, is without water, without roads, and without a sewage system, and instead of a metro, water, electricity, or rose gardens, it will have cholera. The second NF government, which sowed the seeds which produced that disease, is hiding its product from everyone, as a sly black-marketeer would do when he is preparing for a public rip-off.

"Cholera is the NF's official monogram. Whenever it comes to power, it puts the imprint of its cruel monogram on municipalities, and demonstrates the most skillful ways of punishing the citizens who live in cities.

"This is what we propose: The second NF government must announce to our people and to the world the truth about cholera, and seek ways of fighting against the disease in a joint effort with the people. To inform the people of the dimensions of the danger and to ask for the public's all-out support to stamp out cholera are the only alternative we have.

"This is our warning to the second NF government. We call on the government to face up to the facts and to perform its duties."

#### Minister Replies

Minister of Health and Social Aid Cengiz Gokcek was asked to comment on Mayor Dalokay's remarks on cholera as the former came out of a cabinet meeting. The minister replied, "Reporters and the mayor are giving statements. There is no need for us to make one. I suppose they are experts in the field." When reporters asked if there was cholera, Mr Gokcek said, "There is an outbreak of an intestinal infection in Turkey. It is quite widespread in some of our provinces. However, our ministry has determined that there is nothing to be alarmed about. We sent a reinforcement of physicians and supplies to widely affected areas. The situation does not warrant concern." Then, reporters asked the minister, "Does this mean we can report that the health minister denied the Ankara mayor's allegations?" The minister replied, "No, you should not report it in those terms. I simply meant I find it improper for unauthorized people to make statements on matters they know little about."

#### Nationwide Deaths

In Diyarbakir, two patients in the Taspinar village of the Bismil County died of what everyone described as cholera, but what authorities insisted was "an intestinal infection." Three patients from the same village are

at the Medical Faculty Hospital. There are 13 in Silvan and 13 in Diyarbakir suffering from a similar disease. There have been no reports yet from other villages.

Reports say 6,767 people have been examined in Gaziantep to determine if they are carriers. The number of patients in hospitals has dropped from 71 to 47.

In Malatya, a 58-year-old man, a resident of the Kildepe District, and a 53-year-old woman of the Surur village of Malatya proper, died of an intestinal infection. There are 61 people under treatment in Malatya hospitals.

In the Mus region, several types of communicable diseases which break out in warm weather in areas where sanitary conditions are poor are said to be taking on threatening proportions. Typhoid patients are transferred to Diyarbakir and Elazig because there are no physicians in Mus. There are four such typhoid patients--one of them a member of the armed forces--in the Diyarbakir Medical Faculty Hospital. Their condition is described as poor.

#### In Istanbul

There are outbreaks of several types of intestinal infection in Istanbul. Yesterday, one case of typhoid was confirmed. The patient is Yusuf Kasap who lives on the Rehber Street in Kocasinan. His affliction was diagnosed at the Sirinevler Diagnosis and Treatment Center. Officials of the clinic said Mr Kasap came to the clinic on 18 August. Several tests were done and yesterday morning, it was positively identified as typhoid. Mr Kasap is being cared for at his home. Members of his household have been inoculated and instructed on the precautionary measures they should take.

Meanwhile, another resident of the Kocasinan District, who lives in the Cumhuriyet ward, and who has been ill over the past week with intestinal infection, was moved to a hospital yesterday when her condition took a turn for the worse. The patient, identified as Ruhije Gemici, was dehydrating. Doctors are administering serum and preparing to run a series of tests on Mrs Gemici.

#### At Yenibosna

At Yenibosna--a district next-door to Kocasinan--residents contacted officials to get an inoculation drive started in their district when a communicable disease began to spread. In certain sections of Yenibosna, where there are septic tanks instead of sewage pipes, officials fear a seepage may reach the area's fresh water source. Furthermore, running water is cut off so frequently in the area that residents are using water from untested wells.

Yenibosna residents are concerned about a stream of water running between Zafer and Hurriyet wards. They said waste water from the Kocasinan slaughterhouse and sewage from residences are carried by the stream into Yenibosna. When the rains come, they say, the stream becomes a menace, particularly to children whose play area is nearby. Yenibosna people want authorities to help them.

Mayor Remzi Ozkaya, commenting on the grievances of Yenibosna residents, said samples from all the water in the area were taken to laboratories for analysis. Ozkaya also said that mass immunization had not begun in his region yet. "We asked the district administration and the health directorate to inoculate our people also. As a precaution, we are chlorinating the waters of the three artesian wells in our area."

#### Broken Pipes

The intestinal infection outbreak at Kocasinan is partly attributed to the inferior quality of the pipes used in the sewage system. "The pipes are asbestos," said one official. "They crack at the slightest impact and seepage begins." The official was also critical of what he called disorderly urbanization and settlement policies.

#### At Bagcilar

Officials reported that mass immunization is underway at Bagcilar--a section of Bakirkoy. Several of the immunization centers, which had been working with a skeleton staff, have been reinforced. Health officials report they are doing their best to insure that inoculations are effective.

Meanwhile, we learned that close to 800 households at the Ciftlik Yavuz area of Bagcilar are getting their water from a single well which, we were told, is not under any supervision. Ciftlik Yavuz residents use the well's water for drinking, as well as in household chores. Consequently, there is concern about its purity. We are told that there is a line of people by the well at all times of the day and fights over the water have become commonplace.

#### Bulgaria Refuses Admission to Turkish Tourists

ISTANBUL NEWS SERVICE--The Bulgarian Consulate General in Istanbul announced that 2 days ago Bulgarian authorities closed border-crossing points to Turkish travelers who wanted to visit Bulgaria. The announcement comes on the heels of reports of cholera and other communicable diseases in Turkey.

Bulgarian consulate officials say people traveling with a Turkish passport will be issued transit visas only, which means they will be allowed to pass through Bulgaria, but will not be allowed to stay.

It will be remembered that Bulgaria recently lifted visa requirements for tourists planning to stay in the country for 3 days or longer. Travelers who expected to stay less than 3 days were issued transit visas. In view of the recent outbreak of communicable diseases in Istanbul and Ankara, the Bulgarian Government has decided to refuse a residence visa to travelers with a Turkish passport. Officials at the Bulgarian Consulate General said they were waiting for an official announcement from the Turkish Government [presumably denying an outbreak of cholera], and until such an announcement is made, Turkish citizens will not be permitted to enter Bulgaria as tourists.

#### Foreign Affairs Ministry Initiative

The [Turkish] Ministry of Foreign Affairs reportedly has made an initiative to have the Bulgarian Government lift the restrictions on Turkish travelers. The ministry's spokesman, Hasan Uner, gave the following information on the developments:

"Turkish citizens will be issued transit visas. However, Bulgarian authorities, on ground that there is a widespread outbreak of an intestinal disease in Turkey, have limited the length of the transit visa to 12 hours, and have stopped issuing residence visas." Upon hearing of the Bulgarian Government's decision, the spokesman added, "The Ministry of Foreign Affairs, on the basis of statements by the Ministry of Health and the information obtained from the same ministry, took the necessary initiatives at the Bulgarian Embassy in Ankara to have the restrictive measures lifted."

#### Balkan Tourism Agreements

Meanwhile, it was learned that several tourism firms have taken groups of tourists to Bulgaria over the past several days. The Bulgarian Consulate General explained that tours arranged by Bulgaria's official tourism agency and tours which come under agreements made earlier will be allowed for the time being.

#### Measures in Greece

The Greek Ministry of Health is reported to have taken precautions at the Turkish-Greek common border upon reports of a cholera outbreak in Turkey.

A spokesman of the Athens government denied that the border has been closed. He said the measures consist of requiring everyone crossing the common border into Greece to submit to a cholera checkup.

## CHOLERA IN ANKARA

Istanbul HURRIYET in Turkish 8 Sep 77 p 3

[Excerpts] Ankara (HURRIYET)--Although an epidemic of cholera has been observed in neighboring Arab countries, Turkish authorities have insisted that there are no cases of cholera in this country. In spite of this, cholera microbes have been "officially" determined to be present in the heart of Ankara. An analysis of water samples taken from various wells, which was made by the Etimesgut Public Health Laboratory indicates that certain wells in Ankara contain cholera microbes. A total of 24 such wells have been filled in with stones by health teams from the municipality. Women at one such well in the Asikpasa quarter of Ankara physically attempted to prevent authorities from filling in the well.

## CHOLERA AND SHIP SUPPLIES

Istanbul AKSAM in Turkish 23 Sep 77 p 1

[Excerpts] It has been announced recently that foreign flag tourist ships calling at Izmir have refrained from taking on supplies because of reports that there is cholera in Turkey. As examples, on 22 September the Norwegian vessel Royal Viking with 891 passengers, and the Italian vessel Aussine with 354 passengers, both refrained from taking on supplies in Izmir because of the fear of cholera.

## MARDIN CHOLERA DEATHS

Istanbul CUMHURIYET in Turkish 25 Sep 77 pp 1, 9

[Text] Ankara--In a telegram which he sent yesterday to the Health and Social Welfare Ministry, RPP Mardin Senator Mehmet Ali Arikān indicated that five persons had died of cholera and called for an immediate inoculation campaign. In the telegram, Arikān indicated that seven persons were being treated for cholera in the Midyat state hospital and that furthermore, five persons had died in two villages in 2 days. Arikān stated that whereas inoculations had been given in Diyarbakir and Siirt, inoculations had not been given in Mardin, even though it was a border point; on these grounds, he said, measures for inoculating the people were necessary. Arikān also mentioned that the appearance of intestinal infection viruses in the last 48 hours had thrown the people into a panic. He asked that the Health and Social Welfare Ministry send vaccine and inoculate the people in the shortest possible time.

## CHOLERA IN GAZIANTEP

Ankara Domestic Service in Turkish 1000 GMT 29 Sep 77 TA

[Text] It has been announced that five persons who have entered Turkey from a frontier post in Gaziantep have been diagnosed as having cholera. The announcement made by the Health and Social Welfare Ministry says that all cases seen in Gaziantep have come from abroad and that they are under treatment.

The statement adds that all measures have been taken to prevent contamination and that WHO has been informed about the cholera cases.

## ZAMBIA

### MANSA THREATENED WITH CHOLERA, TYPHOID EPIDEMICS

Lusaka TIMES OF ZAMBIA in English 10 Oct 77 p 1

[Text] About 20,000 Mansa residents are threatened with an outbreak of cholera and typhoid epidemic due to improper supply of water, a top council official warned yesterday.

According to township council secretary, Mr Joseph Muleka, 12 students at Mansa Secondary School are among several other residents admitted to the local hospital with abdominal pains after drinking bad water.

He said in Kitwe that the epidemic was due to a shortage of water which had been aggravated by constant bursting of water pipes.

Mr Muleka said the pipes were part of a newly completed K1.2 million Mansa water scheme which was carried out by a private contractor.

He regretted that since the project was completed last May, it had continued to be a headache as pipes burst now and then.

He said the pipes did not work properly and the output per minute was not in accordance with specifications.

"Right now, there is no water in Mansa since we have just had a burst pipe. The council fears that if the problem of water supply is not quickly resolved, there could be an outbreak of serious diseases like typhoid and cholera because people cannot flush their toilets.

"Even Mansa Secondary School has had no water for quite a long time and the authorities there had no alternative but to draw some for domestic use from a nearby well," he said.

The council now wanted to hand over the case of its water scheme to solicitors for advice.

He said six weeks ago, contractors removed two pumps for repair and from that time the council was depending on one pump which was also failing.

When the pumps were returned they were not installed but were dumped outside the pumphouse.

## II. HUMAN DISEASES

### GENERAL

#### INDONESIAN-JAPANESE HEALTH AGREEMENT

Jakarta Domestic Service in Indonesian 1200 GMT 10 Oct 77 BK

[Text] On 10 October Indonesia and Japan signed a technical cooperation agreement in Jakarta for the improvement of public health in North Sumatra, particularly in the Asahan area. The agreement covers efforts to combat contagious diseases, improvement of public health services, public health guidance and other services. Under the agreement Japan will provide health experts, medical facilities and equipment and training to Indonesian health officers in Japan.

### ARGENTINA

#### EXPERT REPORTS TO OFFICIALS ON CHAGAS DISEASE

Buenos Aires LA PRENSA in Spanish 22 Sep 77 p 7

[Text] Yesterday, at the government residence, the supervisor of the National Chagas Service, Col Carlos Romanella Origone, addressed the president of the nation, the minister of social welfare and other authorities for an hour and a half.

He reported on the seriousness of the endemic disease which covers 2.3 million square kilometers of our territory, an area inhabited by half of our population. It has been estimated that 2.5 million individuals have been infected by the parasite known as trypanasoma cruzi, of which number 400,000 are suffering from disease, generally in the form of serious heart ailments, upsets to the digestive tract and nervous tension, the latter to a lesser extent.

The vector, *triatoma infestans*, an insect known as "barbeiro," is the one common to the endemic area, covering the region.

#### Service Virtually at a Standstill

In recent years, owing to a lack of funds, the National Chagas Service declined to such an extent that when the present authorities took over it was virtually at a standstill.

It was remarked that, in view of this situation, the minister of the sector, realizing that the country was faced with an unprecedented national emergency, ordered that the problem be dealt with as a commitment binding on the armed forces, which had to assume this serious responsibility as a military operation.

So, in June of this year, a high-ranking army officer took charge of that service, which has jurisdiction over the entire national territory, and was allocated a budget of 2.332 billion pesos to provide for and re-organize the system for combating the disease in the eight provinces where it was already operating, and including an additional 11 provinces which had not yet been covered by the national program set up for this purpose.

Colonel Romanella stated specifically that a direct, intensive plan of action has been scheduled, which will take 2 years; while the following 3 years will be devoted to continuing the control, which will later be gradually transferred to the provinces.

He said that 736 vacancies would be filled this year, with an additional 1,300 to be filled in 1978; that bidding has already been opened for the purchase of 80 service vehicles, and that there are plans to buy 60 more; that a million liters of insecticides have been purchased, as well as fumigation equipment and personnel safety devices; and that a national research instruction and training center is being built in the city of Cordoba.

He also announced that, starting on 1 January 1978, a large-scale operation would be launched throughout the nation.

#### VACCINE EFFECTIVE AGAINST MENINGITIS

Buenos Aires CLARIN in Spanish 29 Sep 77 p 23

[Text] Yesterday, in Washington, spokesmen from the National Institute of Allergy and Infectious Diseases [NIAID] disclosed that a vaccine to prevent bacterial forms of meningitis has proven effective in children up to 3 years of age. This is the first vaccine that has worked effectively against meningitis at such a precarious age.

The NIAID said that experiments were conducted in Finland with a vaccine which had been perfected in the United States and which prevented Group A meningitis meningococcus in children under 3 years old who had not been inoculated previously.

Since the vaccine had proven effective earlier among older children or adults, scientists claim that the new results indicate that it could protect virtually the entire vulnerable population in the event of an outbreak.

The vaccine which was tested in Finland was prepared by researchers in the United States. It was administered there to over 70,000 children in 1974 and 1975, and not a single case of meningitis occurred among them. On the other hand, of 32,000 children who were not immunized, 13 contracted the disease.

Bacterial meningitis is a serious inflammation of the membranes (meninges) surrounding the brain and spinal cord which can result in death or permanent nerve damage.

The Finnish medical authorities have described the discovery of the vaccine as a major step in curbing the devastating disease. Every year, there are reports of tens of thousands of victims of Group A type meningitis, with a 10 percent mortality rate.

#### CAMPAIGN TO BE WAGED AGAINST BRUCELLOSIS IN HUMANS, ANIMALS

Buenos Aires LA NACION in Spanish 8 Oct 77 Section 2-A p 3

[Text] Brucellosis, one of the most dreaded zoonoses, which causes losses to our country exceeding 30 billion pesos every year, will be attacked in a coordinated fashion in 11 districts of Buenos Aires, thanks to an agreement which has just been signed by the province's Ministry of Agrarian Affairs and the Health Promotion Service [SELSA], which is subordinate to the Secretariat of Agriculture and Livestock of the nation.

The area selected for this planned inoculation campaign includes the entire districts of Coronel Brandsen, San Vicente, Canuelas, Navarro, Lobos, General Las Heras, Marcos Paz, Mercedes, Suipacha, Lujan and General Rodriguez, which are scattered over a broad belt surrounding the metropolitan region.

The commitment, which was signed by the provincial minister of the sector, agronomical engineer Jorge J. Girado, and the general director of the National Animal Health Service [SENASA], Dr Federico Gonzalez Grey, stipulates that both institutions will provide the necessary personnel and technical supplies, as well as the administrative facilities that are required.

The plan will involve only bovine cattle, making it compulsory for calves from 3 to 8 months old to be immunized for a year. The SELSA and the Livestock Department of the Ministry of Agrarian Affairs in Buenos Aires will be directly responsible for its execution. The agreement states that, if the technical and economic facilities so permit, the participating entities will request of the national and provincial authorities that the area established for this initial phase be expanded.

#### Characteristics of the Disease

In 1976, government estimates cited 30.528 billion pesos as the amount lost by the national livestock economy as a result of this infectious-contagious disease caused by a bacterium, the brucella, which is about a thousandth of a millimeter in size.

It was isolated exactly 90 years ago, for the first time, on the island of Malta. That is why it is also known as "Malta fever," although it has been given other names, such as "undulant fever," "Bang's disease," contagious or epizootic abortion, melitococcia and several more. Various species of brucellas have likewise been identified: the abortus, which attacks bovine herds; the melitensis, which attacks goats; the suis, which attacks hogs; the ovis, which attacks sheep; and the canis, which attacks dogs. The latter species was isolated for the first time in our country a short time ago, following studies conducted in Cordoba by Dr Ramaciotti.

#### Transmission to Man

Its status as a zoonosis indicates that the disease originates in animals, and that the latter transmit it to man. The most common sources of infection are goats, cows, hogs and sheep; and the contagion usually occurs through ingestion, contact, inhalation or accidental inoculation.

The most common sources of infection for humans are unprocessed food products made with raw milk from sick animals; as well as contaminated raw vegetables and entrails, and the spinal cord and lymphatic ganglia of infected livestock in which the germ can live for over a month after slaughter, and far longer if the meat is refrigerated or frozen. Another common source of contagion is water contaminated with the feces of sick animals.

Brucellosis caused by contact frequently attacks veterinarians, farmers and the personnel in slaughterhouses and sausage factories who have handled infected dried substances of animal origin. Another very common source of infection is the handling of wool or coming in contact with vehicles which have transported livestock. Although it is more rare, there are still some instances wherein the disease is contracted through experimental inoculation, especially in the case of veterinarians who are preparing vaccines or who are participating in the use thereof.

### The Diagnosis in Humans

The trait whereby it manifests itself with a great many clinical symptoms has made brucellosis in humans a disease that is difficult to diagnose. The victims usually have ailments resembling rheumatism, influenza, liver disease, arthritis and urogenital disease, with cardiac or pulmonary complications which sometimes prove fatal. It causes a partial or total loss of working capacity, with long periods of convalescence; so much so that, in 1972, it was estimated that for every 1,000 victims of brucellosis, the country was losing 6 million pesos per year.

According to the National Epidemiological Bulletin, during the 5-year period from 1972 to 1976, 6,085 cases of human brucellosis were reported in Argentina, of which number 73 percent were located in Catamarca, Cordoba, La Rioja and Salta. The abundant supply of goats in those provinces prompts one to attribute the transmission of the disease to that species.

### Effects on Animals

The premature abortion or expulsion of young is the main symptom among female bovine herds, although sterility, barrenness among females, tendon and joint lesions, synovitis, abscesses, lesions in the genital organs and mastitis have also been observed. As a rule, the animals which have been attacked tend toward a chronic state, while becoming carriers and spreaders of the disease.

Serological tests are the most accurate for diagnosing the disease in both animals and humans. As in the case of any disease the course of which is generally chronic, the appearance of antibodies circulating in the blood is in some cases the only way in which the infection manifests itself. There are serological tests which are easy to make, such as the microscopic slide or Huddleson test, which is used for all species and affords an acceptable safety margin in its results.

The Health Promotion Service provided an estimate of the annual losses caused by brucellosis in bovine cattle alone. According to that source, the losses due to abortions amounted to 14.4 billion pesos, and those due to reduced milk production totaled 16.128 billion, making a grand total of 30.528 billion pesos.

The estimate of losses due to milk secretion were based upon an average reduction of 20 percent in the normal production among cows with brucellosis, while the damage due to abortion was calculated on the basis of the value of the weaned calf.

## TWO CASES OF POLIOMYELITIS REPORTED

Buenos Aires LA NACION in Spanish 8 Oct 77 p 5

[Text] Posadas--Two cases of poliomyelitis have been reported in Eldorado, on the Alto Parana River, located on the Paraguayan border 220 kilometers from Posadas.

The children who contracted it are 7 and 9 months old, respectively, and were born in Argentina. They are confined in the SAMIC Hospital, and it was confirmed that neither of them received the appropriate antipolio inoculation.

As a result, the health authorities in the area have ordered an extensive administration of vaccine, using the Sabin oral vaccine for children aged from 2 months to 5 years; and they will have collaboration from the army personnel stationed in the area who are performing civic action tasks under the program known as Toba IV, ordered by the 7th Infantry Brigade.

The campaign will take place on 14-15 October.

## ANTIRABIES CAMPAIGN SCHEDULED TO BEGIN

Buenos Aires LA PRENSA in Spanish 10 Oct 77 p 8

[Text] La Plata (Buenos Aires)--Starting tomorrow and continuing for a period of 3 months, an intensive campaign of inoculation against canine rabies will be conducted, free of charge, in 52 districts of the province in which cases of rabies have been reported, aimed at "curbing the disease in our area for once and for all."

This announcement was made by the Ministry of Social Welfare, which added: "After the serious epidemiological situation last year, there was a noteworthy decline in the number of cases, which may be estimated at 60 percent during the first 8 months of this year"; because the number of cases of animal rabies, which was 536 and 618 in October and November 1976, respectively, "dropped to a figure ranging between 150 and 200 per month this year. The human rabies cases, which totaled 14 in 1976, numbered 5 during the first 9 months of 1977."

It was indicated that, in the campaign about to begin, approximately 2 million dogs would be inoculated, and that this campaign has also been planned for General Pueyrredon, where some 20,000 dogs were inoculated during the past 2 months owing to the seriousness of the last outbreak of animal rabies in Mar del Plata which caused the death of a 5-year-old child.

## AUSTRALIA

### VIRUS OUTBREAK

Perth THE WEST AUSTRALIAN in English 9 Sep 77 p 4

[Article by Catherine Martin]

[Text] An epidemic of the Coxsackie A16 virus is sweeping through the metropolitan area from Medina to Balga.

Tongue in cheek, people are calling it the "hands, foot and mouth" disease.

But it has nothing to do with the foot and mouth disease of the animal world. It is simply that symptoms of coxsackie virus are little pustules of clear fluid on the mouth, feet and hands.

The symptoms last about a week. People feel unwell, but there is no specific treatment for the virus.

A number of children have been affected, and a Nedlands kindergarten has been closed to stop the spread of the infection.

The infection can be passed on through kissing.

The three different strains of salmonella that have caused outbreak of gastro-enteritis at intervals since about March are no longer causing serious trouble.

Dr E. Mackay-Scollay, chief medical microbiologist with the State Health Laboratories, said yesterday that only a few specimens were now being received by the laboratories.

However, another unidentified virus, with symptoms of headache, fever, vomiting and diarrhoea, is keeping people from work.

They have much stomach pain and have been prescribed analgesics but the severity of individual symptoms varies from person to person.

They are advised to go on a fluid diet and to rest in bed. The symptoms usually disappear in two or three days.

Dr Mackay-Scollay said fears that the low water level might have something to do with the activity of the virus were unfounded.

Two specimens of the influenza-A virus--one from a child and another from an adult--had been isolated.

But an epidemic of influenza-A this year was not expected.

## WARNING ON RISK OF TUBERCULOSIS

Perth THE WEST AUSTRALIAN in English 22 Sep 77 p 24

[Text] An outbreak of tuberculosis could occur in Australia if control measures were relaxed, according to the Federal Department of Health.

In its annual report, the department said there had been an increase in the number of reported cases of tuberculosis in the past year.

It said a total of 1496 new or reactivated cases were reported, all with the potential to infect other people.

This was an increase of 40 cases on 1975, and an increase in rate from 9.9 to 10 for each 100,000 people.

"While the size of the increase was relatively small, it emphasised the point that Australia cannot afford to be complacent about tuberculosis," the report said.

The Federal Government had finished funding a nationwide campaign against TB last December because of the advanced stage reached in tuberculosis control.

But it was important to realise the disease was not defeated in Australia.

"Tuberculosis has existed throughout history, and it is unlikely that it will ever be totally eradicated," the report said.

"A relaxation of control measures could lead to its resurgence."

Mass surveys carried out last year had yielded 17 per cent of the new cases, but because four of the six States had decided to end compulsory X-raying this valuable disease-finding measure would be lost.

The report also noted the high incidence of tuberculosis among migrants.

It said people born outside Australia made up about one in five of the Australian population, yet last year they represented 37.4 per cent of new and reactivated cases.

## SALMONELLA FOUND IN FIVE MILK PLANTS

Melbourne THE AGE in English 21 Sep 77 p 1

[Article by Jo Wiles]

[Text] Five major Victorian milk producers have been ordered to close part of their factories following further discoveries of salmonella bacteria.

The closures, ordered after investigations by Health and Agriculture Department officers, have all occurred since compulsory reporting of salmonella was introduced last month.

The Health Department expects further cases of salmonella contamination to be reported once the stringent regulations have been circulated to all factory microbiologists.

It pressed for the new regulations after a nationwide outbreak of gastro-enteritis in babies was traced to contaminated milk powder produced in Victoria.

The assistant chief health officer of Victoria, Dr. Graham Rouch, said yesterday the five companies, including the Drouin Butter Co-operative and the Nestle Company, had all reported salmonella contamination.

Dr. Rouch said four uncommon types of salmonella--Newport, Bredeney, Adelaide and Anatum--had been discovered in casein produced by the different factories.

Production of casein had now been stopped and all existing stocks put in quarantine until the plants had been sterilised.

Casein--a protein extracted from skim milk and used in many foods including ice cream, diet biscuits, baby food and invalid supplements--formed a major part of the companies' business.

Employee

Dr. Rouch said no contamination had been found in the companies' butter or milk powder but one salmonella type had been isolated in an employee.

The worker was thought to have become infected after drinking raw milk. It was doubted whether he was a true salmonella carrier and the source of the infection.

There seemed to be a possible link between the company where the man was employed and two other factories which formed a triangle in northern Victoria.

These plants had either salmonella Bredeney or Anatum or a combination of the two.

Dr. Rouch said he believed some laboratories would report cases of salmonella when they saw the regulations.

"I have a feeling borne out by some telephone conversations I have had that some laboratories are holding off until they see the new regulations," he said.

The chief of the Agriculture Department's dairy division, Mr. Ian Howie, said last night there were about 22 milk producers and 45 factories in Victoria.

Mr. Howie said the closure of the plants' casein manufacture would have no significant effect on farmers because milk production had been falling each year by about 10 per cent.

#### AUSTRIA

##### VACCINE FOR TICK-BORNE ENCEPHALITIS

Budapest MAGYARORSZAG in Hungarian 25 Sep 77 p 22

[Excerpt] Efforts to develop a vaccine against tick-borne encephalitis began in Vienna in 1970. The vaccine which was successfully tested during 1974-1975 was prepared from virus cultured on chick embryos and killed with formalin. The first vaccination was repeated in 2 to 4 weeks and then a booster shot was given after 9 to 12 months. Thereafter, antibodies were found in the blood of 95 percent of those inoculated. There were practically no side effects from the vaccine. Occasionally young children experienced elevated temperature and swelling at the site of the inoculation.

It is not yet clear for how long the vaccine confers immunity, but the researchers believe that it is for years. If there should be a significant drop in the number of antibodies, it appears that an additional booster shot will provide life-long immunity.

According to the findings in Vienna, there is no cause for alarm even when the first symptoms of the disease become evident after the period of incubation. This is because the researchers have succeeded, through a special process, in preparing an immunoglobulin from blood plasma of persons who contracted the disease in the past. This preparation neutralizes the virus which has multiplied in the system and thus prevents full development of the disease. Inoculation immediately following infection or shortly thereafter is considered inadvisable. The risk can be minimized

or virtually eliminated by giving the vaccine and the immunoglobulin simultaneously.

## BRAZIL

### MENINGITIS CASES CONFIRMED

Rio de Janeiro JORNAL DO BRASIL in Portuguese 29 Sep 77 p 16

[Text] Brasilia--Meningitis cases and infectious-contagious diseases have increased in this capital in recent days. This was admitted yesterday by the president of the Federal District Hospital Foundation, Mr Paulo Rios. He discarded the assumption, however, that this involves an epidemic outbreak of meningitis, explaining that a higher disease rate is normal during the dry season, which is the case now.

Mr Edmundo Juarez, national secretary of basic health actions, also announced that he had received no reports as to the existence of an outbreak of meningitis in Brasilia--which would happen if this had actually been the case, because it is up to the Ministry of Health to assist the government of the Federal District with vaccine and preventive measures.

Because meningitis is an endemic disease, Mr Paulo Rios explained, it has always existed and will continue to exist, although only an abnormal increase could turn into an epidemic, as happened in 1974.

Sao Paulo O ESTADO DE SAO PAULO in Portuguese 9 Oct 77 p 36

[Text] Salvador--Ubaldo Porto Dantas, Bahia's secretary of health, confirmed in Salvador yesterday that six deaths attributed to meningococcic meningitis have occurred this month in the municipio of Miguel Calmon, in the interior of the state. He reported, however, that none of the cases has been confirmed yet, because the material collected by the secretariat's medical team, which was sent to the area, is being submitted to laboratory analysis.

Ubaldo Dantas explained that until the results of the analysis are known, the Secretariat of Health will take the preventive position of attributing the deaths to meningitis. Thus it has distributed sulfa to the affected population, and is maintaining the medical team that is conducting an epidemiological investigation of the area. He adds that meanwhile among the patients that have been located, only one is still under suspicion. The patient is confined in a hospital in Jacobina, a municipio neighboring Miguel Calmon.

For its part, the Salvador press is continuing to focus on the matter--which was first announced by the Health Secretariat itself--as an "outbreak

of meningococcal meningitis." People arriving from Miguel Calmon yesterday reported that at least 10 people have died in the last 15 days, but the hospital in Miguel Calmon is refusing to attend patients, claiming a lack of facilities.

Also, according to information arriving in Salvador from Miguel Calmon, the Health Secretariat team has distributed medicine in the locations showing a large incidence of the illness, whose symptoms are considered by area doctors to indicate meningitis. But this assistance is being hampered, partly because there is no one to give the injections.

The reports made note of an odd fact that is occurring in the city's cemetery. The cemetery's director is reluctant to bury meningitis victims, and at mid-week the body of a little boy was refused burial.

#### GERMAN MEASLES INCREASES; MANY CASES OF HEPATITIS, MENINGITIS

Brasilia CORREIO BRAZILIENSE in Portuguese 16 Sep 77 p 13

[Excerpts] A notable increase in the number of cases of German measles has been noted in this federal district in recent days. As of yesterday morning, there were many children in the emergency pediatrics section of the Base Hospital suffering from symptoms of the disease. Up until 0900 hours, there was only one doctor on duty to deal with what was already a rather long line of patients. The mothers waiting for their children to see a doctor complained that "if these children really have German measles, the contact with the others here can only increase the number of cases still further."

In addition to the more common diseases of this season, such as dehydration, the parents at the emergency pediatrics ward yesterday reported that in the outlying cities from which they come there have been many cases of hepatitis and meningitis. The parents of young Luiz Henrique Silva, 8 years old, who lives in Taguatinga, said that in that outlying town "the primary schools are full of children with German measles." When a reporter inquired about the number of German measles cases dealt with daily at this hospital, the head nurse in the emergency pediatrics section answered that "we have a great deal to do here and nurses have neither time nor authorization to give out information to the press." This reflects the attitude toward the press adopted by the president of the FHDF [Federal District Hospital Foundation].

## BRAZILIAN TUBERCULOSIS CONTROL CAMPAIGN

Brasilia CORREIO BRAZILIENSE in Portuguese 10 Sep 77 p 14

[Text] More than 220,000 persons in the age group between 3 months and 20 years have been given BCG vaccine intradermically, in a campaign to prevent, combat and control tuberculosis in the Federal District geo-economic region. The program has been administered for more than 2 years by mobile public health teams from the Brasilia Health Station.

This work, a pioneer effort in the field of preventive medicine, covering urban and rural areas, has also covered 41 municipios in Goias and Minas Gerais in this period. The campaign has been named "Heart of Brazil," because it is being carried out in the center of the country. It was set up by the National Tuberculosis Division of the Ministry of Health, and teams from the Federal District Hospital Foundation are participating directly.

### Positive Results

The campaign to prevent tuberculosis, with the success achieved in the 41 municipios, is to be extended to other cities in Goias and Minas Gerais. Currently, the area covered by the teams from Brasilia totals 160,000 square kilometers, with a population of approximately 600,000. The cities farthest from Brasilia are Almas, in Goias, 800 kilometers away, and Montalvania, in Minas Gerais, 500 kilometers away.

Thus far, the vehicles carrying the personnel from the Brasilia Health Station have traveled more than 45,000 kilometers, a distance equivalent to 10 round trips on the highway between Belem and Brasilia.

According to Dr Carlos Florentino, director of the health station and coordinator of the "Heart of Brazil" program, the work of preventing, combating and controlling tuberculosis has been proceeding in satisfactory fashion, with positive results. The detection of cases of tuberculosis by bacteriological diagnosis is done in the region itself. If a town lacks resources, materials are analyzed in the nearest city--called a pole city--where health units or laboratories are to be found. After the illness is diagnosed, specialized treatment of the patient is begun immediately.

In the past 30 months, just under 250 cases have been diagnosed. This index is regarded as low in terms of the living conditions. On an average 50 sick persons are found out of every group of 100,000. Tuberculosis carriers are treated on the spot, without any need for them to go to Brasilia. More than 75 percent of the persons are already in good health again. Almost all the tuberculosis carriers are adults, few cases having been found among children.

Each of the teams from Brasilia includes a physician specializing in phthisiology, a specialized nurse, an auxiliary nurse and a driver. This team, in addition to doing vaccination and tuberculosis control work, trains two or three local individuals in each municipio to work in the area, as well as establishing, to the extent that it is possible, health units in various towns with more limited resources, with the assistance of the municipio prefectures.

Rio de Janeiro O GLOBO in Portuguese 23 Sep 77 p 6

[Text] Recife--"Unfortunately, tuberculosis has the highest mortality and morbidity indices in the country, in which the people are developing the unrealistic and dangerous idea that the disease is under control. It represents the greatest public health problem in Brazil, where a tuberculosis patient dies every half hour and a new case is diagnosed every 5 minutes." This statement was made by Dr Luiz Regueira, who heads the Department of Pneumology of the Pernambuco Medical Sciences Faculty. He added that "our current weapons in the struggle against tuberculosis account for only 50 percent of our needs, which means that half of the patients suffering from the disease go undetected, undiagnosed and untreated. The seed of the disease remains alive."

#### UNIDENTIFIED DISEASE CAUSES DEFORMITIES; CHAGAS DISEASE

Rio de Janeiro O GLOBO in Portuguese 18 Sep 77 p 10

[Text] Porto Alegre--An unknown ailment is afflicting the rural population in Santana da Boa Vista, a municipio 299 kilometers from the capital. Lacking proper medical care, a large number of persons in the rural zone and even in the town are falling victim to the disease.

The ailment which has not yet been studied or identified primarily attacks the bones of the legs and deforms them. The deformation is preceded by acute pain. Subsequently, the legs atrophy and the feet are bent backward.

Although the ailment has existed for many years, it is only now that it has become known to members of the Brazilian Aid Legion. The regional president of that body, Adail Moraes, the father of former Minister of Industry and Commerce Pratini de Moraes, informed the legislative assembly of the matter. The earliest sufferers from the disease belong to the Rosa family, in Campinas, the first district in Santana da Boa Vista. Of nine children, four have been crippled by the disease. Orni, 34 years of age, Erni, 23, and Solange, 20, live in wheelchairs. Feliciano, 30, who also contracted the disease, died 2 years ago. No physician in the neighboring municipios, such as Santa Maria and Cacapava, has been able to find the cause of the ailment.

### The Victims

Orni Rosa, the oldest of the children, says that he developed the disease when he was 7 years of age.

"I began to feel an intense pain in the thigh. Then my legs became deformed. I could no longer walk. I have lived in this wheelchair for years."

The same ailment attacked Feliciano, Erni and then Solange. She does not speak and does not like to be seen with her totally deformed legs in her wheelchair.

The Rosa family case is not the only one. About a kilometer from the home of the Rosa family, young Adao Jesus, 25 years of age, also lives in a wheelchair, entirely deformed. Other cases at various points in the rural zone are known. In the town there are two sisters, Alaide and Jussara, 30 and 24 years of age respectively, who have begun to notice the symptoms of the disease and are gradually becoming deformed.

Lacking a diagnosis, no one in the municipio knows whether the disease is communicable or not. Some have ventured suppositions, saying that it is a form of poliomyelitis. Others attribute the ailment to consanguineous marriage. In the case of the Rosa family, for example, the parents, Firnote and Isabela, now deceased, were first cousins.

Vitor Bacchieri, president of the Special Commission of the Brazilian Aid Legion, said in speaking to the legislative assembly that the cause of the disease may possibly be consanguineous marriage. And he went so far as to propose a ban on marriages between relatives, as well as the introduction of immigrants from other municipios "to cleanse the blood of the population" of Santana da Boa Vista.

### The Poverty Problem

This deforming disease is only one of the innumerable health problems in Santana da Boa Vista. Chagas disease (trypanosomiasis), for example, affects almost 40 percent of the 11,000 inhabitants of the municipio, which has perhaps the highest index in the country. Lacking sanitary conditions and medical service, Santana da Boa Vista is a sick municipio. Until just a short time ago, the rural population, living in mud huts with thatched roofs of straw, shared their premises with animals, with no sanitary facilities. Currently, the Brazilian Aid Legion is distributing milk daily to the most needy inhabitants. Also, its representatives give talks, demonstrating personal hygiene techniques, and showing the people how to handle food and even how to plant a small vegetable garden.

### Without Hope

Santana da Boa Vista has no industries and very little commerce, which is made up mainly of little shops where the most popular item sold is rum. There is practically no crop raising, and the livestock breeding known as the strong point of the region is low in productivity. A few years ago a large part of the population made its living in the "Baby" Pignatari copper mines in Cacapava do Sul. With the closing of the mines, hunger stalked the homes of the people.

There are no doctors in the town. If someone needs to consult a specialist, he must travel to Santa Maria, Pelotas or Cacapava do Sul.

Milda Pereira, the representative of the Brazilian Aid Legion in the town, says that the government should devote priority concern to the municipio.

"The majority of the people here suffer from hunger. Illness is a constant companion. We do not have many facilities for aiding the population," she said.

"The town is sad, with old buildings, poorly paved and mud filled streets through which a population bereft of hope wanders. The low income level of the inhabitants makes Santana da Boa Vista one of the most problematic municipios in the southern part of the state. Some of the older residents of the municipio are still hoping for the reopening of the copper mines.

"If this were to happen and if medicine were finally to reach Santana da Boa Vista," Milda Pereira says, "perhaps the municipio would survive."

### CASES OF SCHISTOSOMIASIS REPORTED IN CUBATAO

Sao Paulo O ESTADO DE SAO PAULO in Portuguese 28 Sep 77 p 17

[Text] Shortly after last year's elections, the country's largest focus of schistosomiasis was discovered in Cubatao. This happened in Vila Soco, a "favela" where about 4,000 persons live in wooden shacks, built on stilts on a huge mangrove swamp. Immediate steps were taken and a big team from the Schistosomiasis Control Campaign [CACESQ] sprayed a strong bactericide on the still waters and treated 307 persons who had been found to be contaminated. Now, 1 year later, the prefecture of Cubatao has announced that during the first 6 months of this year alone, the schistosomiasis rate went up 80 percent with 537 cases actually recorded.

"I do not want the people to think that we administered last year's treatment because of the elections," said Prefect Carlos Frederico Soares de Campos several days later, worried about the issue's political aspect. He even went to Vila Soco to "calm the people living there." But he freely

expressed himself to the newsmen: "If it were encephalitis--a disease that kills and deforms--everybody would take steps. But, because it is schistosomiasis, which kills slowly, things just drag along."

It so happened that CACESQ was closed down early this year and action against larvae, which transmit the disease, became a responsibility of SUCEN (Superintendency for the Control of Endemic Diseases). Months later, however, malaria was discovered along the north shore of Sao Paulo and, with the few people it had available, SUCEN had to go there to enable the team to render services in Cubatao.

This at least is the explanation we got from the Cubatao health coordination office where the coordinator, Dr Edmon Atik, has just realized that this fight against gastropods led nowhere: "The drive turned out to be fruitless which once again showed that we must invest in the only efficient method, which is basic sanitation."

The fact is that Cubatao has no sewage network; this is rather strange when we realize that this township wound up with a surplus of 12 million cruzeiros last August. According to calculations by the prefecture, the figure should go up to 50 million by the end of the year. Cubatao presently is in third place in terms of tax collection throughout the state, in proportion to the number of inhabitants (75,000). The best argument to explain this failure--the township also holds the record in dental caries--is perhaps represented by the fact that 52 percent of the budget, amounting to 231 million, went for administrative expenses to pay 1,710 civil servants.

#### REPORTS OF MALARIA CASES IN BRASILIA

Brasilia CORREIO BRAZILIENSE in Portuguese 25 Sep 77 p 13

[Text] The WHO considers the Federal District not to be a malaria area, first of all, because the "anopheles mosquito" (the disease carrier) does not reach places above an elevation of 900 meters (and the Federal District is well above that) and also because pollution in Lake Paranoa does not permit its proliferation. This explanation was given yesterday by SUCAM [Superintendency for Public Health Campaigns] Superintendent Ernani Motta, who was rather surprised over the news that malaria cases were occurring in Brasilia, hitting persons who had been fishing in Lake Paranoa.

According to Motta, no cases of malaria transmission has so far been observed in local hospitals; most of the cases occurring here involve persons who had been in endemic areas, such as the Basin of Araguaia, a place where persons who like to fish go over the weekend. One thing SUCAM has been doing here is to use insecticides against the carriers. "In this way we have managed to reduce the number of cases transmitted in these

areas," said Motta. And he gave an example: in 1973, when the malaria eradication service was set up here, we had an average of 60 cases per month and this year we have only detected 109 cases as of August.

SUCAM is conducting a broad malaria control drive not only in Brasilia but throughout all of Brazil. Here, control is permanent and SUCAM each month prepares a table of cases identified. Throughout 1976, 202 cases were verified but there was no case of transmission in Brasilia; persons who come to local hospitals with malaria acquired the disease in their cities of origin or while passing through endemic areas. In Brasilia, the highest rate of individuals stricken with malaria involves those who came from the state of Goias (with 147 cases in 1976, accounting for 72 percent of the total), followed by Para (with 8 percent of the cases identified here), Mato Grosso (6 percent), and Maranhao (5 percent). By August 1977, 109 cases had been discovered and Goias is still the state with the highest rate (63 percent), followed by Para with 18 percent and Mato Grosso with 6 percent. The malaria control service established by SUCAM is now so well known that the hospitals themselves make sure that the agency obtains data on all disease carriers who show up at the out-patient department or who are admitted to the hospitals.

SUCAM is constantly sending requests to health secretariats throughout Brazil, asking them likewise to implement efficient disease control procedures in those localities. The superintendency in Brasilia maintains that, although the Federal District is not a malaria area, it is evident that carriers, who contract the infection in endemic regions in other Brazilian states, have entered the district area. SUCAM is very much concerned with making sure that these imported cases also get immediate and adequate attention so as to prevent the aggravation of the clinical situation through carriers who are not immune; this could turn into an irreversible situation, with fatal consequences.

The steps suggested to hospitals all over Brazil by SUCAM is that any suspected disease case should be reported to that agency for statistical recording. Along with the request for control procedures, the secretariats of health also get a little booklet which includes therapeutic guidance for use against malaria, and emergency procedures recommended in clinical cases featuring acute attacks of the disease. SUCAM is in a position to provide emergency antimalaria supplies for the different radical treatment procedures employed for various malaria infections; this much was guaranteed by Superintendent Ernani Motta. According to him, the fight against the disease is based on two fundamental points: prevention, to avoid contamination and, in suspect cases, rapid diagnosis so that control may be implemented by health agencies.

Another service rendered by SUCAM in Brasilia involves the preventive care for persons who may have spent some days in endemic regions. These individuals should go to the 7th floor of the Ministry of Health where they will receive medication.

Malaria Cases Registered in the Federal District  
August 1976-August 1977

States of origin	1976		1977	
	Total	%	Total	%
Acre	1	0.5	-	-
Amapa	2	1.0	-	-
Amazonas	1	0.5	3	2.7
Bahia	1	0.5	-	-
Goias	147	72.8	69	63.4
Maranhao	10	4.9	3	2.7
Mato Grosso	13	6.4	7	6.4
Para	16	7.9	20	18.4
Rondonia	10	5.0	5	4.6
Roraima	1	0.5	1	0.9
Minas Gerais	-	-	1	0.9
Total	202	100.0	109	100.0

INFECTIOUS DIARRHEA OUTBREAK; NURSERY CLOSED

Rio de Janeiro JORNAL DO BRASIL in Portuguese 28 Sep 77 p 14

[Text] Joao Monlevade (MG)--An outbreak of infectious diarrhea killed 16 out of the 120 babies born between 31 August and 24 September in the maternity ward of the Margarida hospital in this city. The hospital management closed and isolated the nursery for 45 days and is now recommending that pregnant women go to hospitals in nearby towns.

Ten babies died before discharge and six lived for several days at home, after which they were returned to the maternity ward because of a deterioration in their state of health. Other children who contracted the infection were treated and managed to recover. The first cases of diarrhea were recorded on 31 August and 10 days later eight children had died.

An official note issued yesterday by the hospital--the best in the Aco valley region--points out that, shortly after the appearance of the first cases, "energetic measures were taken, including the mobilization of all available technical and human resources, in an effort to control the outbreak." Between the 10th and 21st, there were no new cases but several came out on the 22d and another two children died on the 24th. "We closed the nursery after checking with specialists from Belo Horizonte," observed Mr Stanley Batista de Oliveira, chief of the medical service.

The hospital management announced that pregnant women would be taken care of "only in cases of extreme urgency" and summoned community leaders to

make the population aware of the scientific aspects of these events; this was the topic of a Sunday sermon at all local churches.

#### Outbreak

Before the hospital announced the outbreak, news of the death of children began to circulate throughout the city--113 kilometers from Belo Horizonte, with 50,000 inhabitants--whose life revolves around the Belgo-Mineira Steel Company, the former owner of the Margarida Hospital, which since 1975 has been maintained by the Monlevade Social Services Association.

Dr Stanley Batista de Oliveira does not know how to explain the appearance of germs of Klebsiella aerobacter and Escherichia coli in one of the two nurseries--the hospital had three.

Rio de Janeiro O GLOBO in Portuguese 3 Oct 77 p 6

[Text] Belo Horizonte (O GLOBO)--Because of the recent outbreak of infectious diarrhea, which caused the death of 10 infants, the nursery at the Margarida Hospital in the municipio of Joao Monlevade will be completely abandoned. The hospital's administrative association announced in this capital yesterday that inasmuch as the site is contaminated, it has decided to build another nursery.

The outbreak of infectious diarrhea is not new to nurseries, according to the medical superintendent of the Minas Gerais Health Secretariat. He reported that outbreaks of this kind are easily controlled, but stressed that the one which occurred in the Margarida Hospital was of major intensity, causing an excessive number of fatalities. After a minute examination of the nursery facilities, the Secretariat of Health yesterday released a note clarifying that the bacterium that provoked the outbreak is "Escherichia coli," which is capable of causing dehydration and death.

#### YELLOW FEVER CAMPAIGN INITIATED IN RIO DE JANEIRO

Rio de Janeiro JORNAL DO BRASIL in Portuguese 2 Oct 77 p 21

[Text] One out of every three houses in Rio will be visited by sanitation wardens of the Superintendency of Public Health Campaigns (SUCAM), in search of the mosquito "Aedes aegyptae," the vector of yellow fever. The search will be conducted by 200 officers and should be completed in January.

The search for foci will cover 330,000 dwelling units in the Central and Southern Zones of Rio and Niteroi. Since April the sanitation officers have treated 85,000 dwellings with insecticide, in Maracana, Tijuca, Vila Isabel, Sao Cristovao, Ramos, Meier, Engenho Novo and Lins de Vasconcelos.

The treatment will be extended to another 35,000 dwellings in these areas, where foci have been found, and will be completed by 20 October.

#### The Focus

Mr Lelio Calheiros, the director of the SUCAM's Division for Control of Yellow Fever, explained that in Rio the superintendency maintains a team of 500 officers for the treatment of foci and 200 for visiting; 50 officers maintain epidemic vigilance at the international airport, port docks and interstate bus and truck terminals.

Yellow fever was thought to have been eradicated in Rio de Janeiro in 1942, when the last focus of the vector mosquito was eliminated in Nova Iguacu. But in March a sanitation warden located a focus of "Aedes aegyptae" in a Sao Cristovao bar, which originated with larvae carried from Bahia in cargo vans.

In a campaign initiated in April, SUCAM teams also began to investigate the neighboring districts, identifying foci and eliminating them with the larvicide "Abate," a granular powder placed in drinking water storage tanks, and with the insecticide/larvicide "Sumithion," which is sprayed in gratings, grease traps and stagnant pools.

The search will be extended throughout the state of Rio de Janeiro, but the SUCAM reported that to date no case of the disease has been verified in Rio.

#### CHAGAS DISEASE NEWEST HEALTH THREAT IN RIO

Sao Paulo FOLHA DE SAO PAULO in Portuguese 3 Oct 77 p 4

[Excerpts] Rio--Chagas disease--transmitted by insects known as "barbeiro" ["barber," or kissing bug]--is the newest health threat to residents of the city and state of Rio de Janeiro, although the Ministry of Health has officially reported that the appearance of the disease transmitting insects (10 in 1 week) is not a cause for alarm.

Federal, state and municipal health agencies have mobilized to combat the insects, two of which have been found to be infected with the "trypansoma" of the disease, which could spread if some Chagas carrier is bitten. It is the danger of the initiation of this cycle, which is not present in Rio, that worries the authorities and the population.

The debate and the alarm over the disease arose at the beginning of the week, when a boy who lives in Rua Sergio Porto in Gavea, in the Southern Zone of Rio, found three insects in his home and took them to school, where his teacher identified them as "barbeiros." The boy's father took the insects to the State Health Secretariat, which forwarded them to the Osvaldo Cruz Institute in Manguinas for identification.

Two of them are of the species "Triatoma infestans" and "Panstrongylus megistus," but the institute was not able to say if they had been infected, because they were brought in dead, in a bottle of alcohol. It was later, during an examination of other captured insects, that the two infected insects were found. The "barbeiros" were not only found in the shanties in the Pocinha "favela," but in middle-class homes, although they normally appear more in poorer areas.

#### Blood Banks

Jose Rodrigues Coura, professor of tropical medicine of the Federal University of Rio de Janeiro, is conducting a team research of a focus of "barbeiros" in Duque de Caxias, lower Fluminense. He warns that it is imperative to supervise blood banks, where blood may be "donated"--sold--by individuals carrying Chagas disease.

Coura feels this disease is the most serious epidemiological problem in Rio. He says that from a study of 4,595 blood vendors, 58 were found to show a positive reaction for Chagas disease, or 1.26 percent of the "donations." The professor demanded the most rigorous supervision of these blood banks, on pain of having the disease spread, not through the bites of the "barbeiros," but through the use of contaminated blood, by transfusions during surgery, etc.

He also reported a forest focus of "barbeiros" in the district of Santa Teresa, Rio. The sanitation officials assume it originated with the arrival of migrants from Minas Gerais, where the disease is epidemic. (Some 51,395 insects were captured in this state in 1974, and 2,397 of them were infected, according to the IBGE [Brazilian Institute of Geography and Statistics] 1975 Statistical Yearbook.)

The insects may have come in the migrants' luggage, and thus have been established in a "favela" in Santa Teresa. Dr Francisco Laranja, of the Oswaldo Cruz Foundation, feels the presence of "barbeiros" is not alarming as long as they are not infected.

#### BURMA

#### MALARIA CONTROL PROGRAM

Rangoon THE WORKING PEOPLE'S DAILY in English 28 Sep 77 p 2

[Editorial]

[Text] Burma has been waging a malaria control programme since 1953 and has achieved considerable success in this field.

A sharp decline in the mortality and morbidity rates was registered in the early 1970s. While about 75 per cent of the people in malaria zones in Burma were previously prone to the disease, the rate dropped to 41 per cent by 1974 and while 91 out of every 100,000 persons died of malaria in 1954, the death rate dropped to five per 100,000 by 1964.

However, this favourable trend has been marred by a certain resurgence of the disease in some regions within the last couple of years. There may of course be many factors involved in the development. Since the movement of people from one place to another is a prime cause in the speedy spread of the disease, the recent trend in malaria incidence may well be attributed to enhanced human traffic from malarial regions. In this case, malaria could have been brought in by smugglers who go through malaria-ridden areas in conducting their nefarious activities in the border regions. This seems to be borne out by the fact that areas of incidence up-trend match areas of the highest volume of smuggling activity.

Though we may have successfully brought the disease under control on the whole, it will invariably prove difficult to maintain the situation if there is constant danger of the disease being spread from endemic to "malaria-free" areas through frequent movements of people without benefit of proper medical checks and controls.

We cannot over-emphasise the need to maintain relentless efforts to control disease, not the least malaria, to prevent it from hindering social and economic progress.

A case in point is that of the Yadanabon Mines in Bokepyin Township. The mine exceeded its production target in 1976-77 but production was hampered when a number of mine workers were laid low with malaria in late May this year. Fortunately, it was brought under control through prompt action taken by the Health Department before it could do any great damage.

In the light of experience gained from the Yadanabon Mines, the Kayah State Health Department, under the direction of the Kayah State People's Council, is making sure that this kind of unwarranted hinderance in production does not repeat itself in the mines in Kayah State. Preventive measures are now being taken in the Mawchi Mines area of Pasawng Township.

It will perhaps be difficult for Burma under present conditions to eradicate this disease since the country is full of dense jungles, muddy fields and marshes. But nevertheless try we must to the best of our ability and the limits of our resources to keep under all possible control the harm which this insidious disease can inflict upon the physical well-being of the people and the economic health of human society.

Here, as in other fields of public health, it will be necessary to organise the people to ensure their active participation in the efforts to control malaria and to report any outbreak of malaria or other epidemics promptly

to the health authorities. Above all, it is important to inculcate understanding of how exactly prevention is to be achieved.

At the same time, we cannot help feeling that a clamp-down on smugglers' activities will do much to slash outbreaks caused by human-borne malaria. By so doing, we will be dealing a double blow. First we will be putting a stop to the clandestine economic activity which adversely affects the socialist economy. And at the same time, we will be helping to create right conditions for strengthening physical health and for inculcating right mental attitudes essential in establishing a socialist society in every sense of the term.

#### EAST GERMANY

##### IMPROVEMENT IN SUPPLY OF PHARMACEUTICALS NOTED

East Berlin PRESSE-INFORMATIONEN in German 22 Sep 77 pp 4-5

[Article by Werner Hohtanz, director general VVB (Association of State Enterprises) for Pharmaceutical Industry]

[Excerpts] Good health and a rapid recovery during illness are in the interest of the individual and society. In this connection, workers in the pharmaceutical industry carry a heavy responsibility by making available high quality medications for prophylaxis and therapy, especially for infectious diseases that are of an epidemic character. Preparations, as for example the assortment for influenza, or the medications Corinfar, Awelysin and Tachmalcor for the heart and the circulatory system, were developed and produced on a priority basis by the GDR pharmaceutical industry.

The pharmaceutical industry with its products has a direct effect on the personal well-being of the people because it provides basic support for medical treatment. That is one of the standards which will be the point of departure for the more than 14,000 workers in the pharmaceutical industry in about 100 enterprises and production sites, if, in the current 5-year period, they are going to increase drug production to about 165 percent vis-a-vis the 1975 level.

##### Reconstruction in the Dresden Pharmaceutical Plant

To this end, for example, extensive measures are planned for reconstruction and for expanding drug production at the main enterprise of the VEB combine for pharmaceuticals, Dresden. Supplying the people with finished pharmaceuticals is the principal area to be improved by this project, the most important to date in the GDR pharmaceutical industry. At the same time it is becoming possible to increase substantially exports to CEMA

member countries as well as to the capitalist economic area and the young national states.

A key point in this project is the multi-purpose plant in which in the future pharmaceutical agents for heart and circulatory drugs, mind drugs and antidiabetic drugs will be manufactured by appropriate synthetic processes. In this way the largest producer of pharmaceuticals in our republic obtains the prerequisites for being able, at short notice, to put into production new and further developed products.

Another important measure for continuously increasing pharmaceuticals production is the reconstruction and expansion of production installations at the Jenapharm combine VEB, for the production of antibiotics and plasters.

#### Diverse Competition Initiatives

As part of the socialist competition in honor of the 60th anniversary of Red October, the workers in the pharmaceutical industry are developing various initiatives in order to do justice to the requirements set for them by the social-political program.

The goal of the Jenapharm VEB workers, proven producer of antibiotics, hormones and vitamins, is, among other things, to realize by 31 October the science and technology part of the plan and by 30 September to achieve 75.3 percent of the plan for goods production and 100 percent of exports to the USSR. The "Ho Chi Minh" collective obligated itself to produce an additional 2.5 tons of vitamin C. This is sufficient, for example, for 1.25 million packets of the vitamin C preparation Ascorvit.

Records for shift changing, so-called checklists, made it possible in the sulfa drugs department of the pharmaceutical plant in Dresden to organize production more efficiently. The incoming shift is given precise information about the situation in production at that time. Before changing shifts the installations and individual process stages are prepared in such a way that after a short review the workers of the incoming shift can continue production.

#### INDONESIA

#### MEASLES FATALITIES

Jakarta ANTARA in English 0701 GMT 24 Sep 77 BK

[Excerpt] Ampenan, Sep 24 (ANTARA)--Sixty children in West Lombok and Ampenan sub-districts died of measles which was rife in those areas between April and September this year. Dr R. Bawadiman, chief of the Nusatenggara

Health Office, said the prevalence of the disease in the areas was due to a traditional notion of the local people who disregard the importance of preventive and curative measures provided by the local Public Health Centres.

## NIGERIA

### LEPROSY PATIENTS DISCHARGED

Kaduna NEW NIGERIAN in English 20 Sep 77 p 2

[Text] A total of 241 leprosy patients in the Mariga Local Government area in Niger State have been treated and discharged in the last five years.

This was contained in a speech delivered by the area Rural Health Superintendent in charge of the leprosy section, Kontagora, Malam Mohammed Aminu Tukura at a discharge ceremony last week.

Malam Mohammed Aminu disclosed that about 2,116 patients had been receiving treatment from about 30 leprosy treatment centres in the local government area.

He also expressed gratitude to officials of the United Nations International Children's Emergency Fund (UNICEF) and the state's Ministry of Health for their untiring efforts in providing drugs and social facilities to combat the spread of the disease in the area.

### WOMEN, CHILDREN IMMUNIZED AGAINST VARIOUS DISEASES

Kaduna NEW NIGERIAN in English 21 Sep 77 p 9

[Text] A total of 9,302 children between the ages of three months and two years were immunized against tuberculosis, poliomyelitis, whooping cough, tetanus and diphtheria in Ekiti South Local Government area of Ondo State between August 22 and 26, this year.

Also 2,802 women were immunized against tetanus in the area during the same period.

These facts were given at Ise-Ekiti by the Rural Health Superintendent in charge of the state Epidemiological Unit, Mr. A. Akingbade, at the end of a week-long health education programme in the area.

The programme was jointly organised by health officials in the area and the state Health Education and Epidemiological Units. It was designed to

educate the various communities in the area on the various diseases affecting children and how to prevent them.

Speaking at the ceremony, the regent of Ise-Ekiti, Madam Adepeju, commended the state government for laying great emphasis on the environmental sanitation of every community and the state in general.

She appealed to the various communities in Ekiti South Local Government to follow the advise and practical demonstrations organised for them during the week.

#### FUNDS ALLOCATED FOR DISEASE ERADICATION

Kaduna NEW NIGERIAN in English 23 Sep 77 p 13

[Article by Mike Reis]

[Text] The total eradication of communicable diseases throughout the country is now the major problem confronting the Federal Ministry of Health.

To this end, a total sum of two million Naira has been provided by the Federal Military Government to initiate the execution of this programme.

These facts were contained in a speech by the Federal Commissioner for Health, Dr. P. M. Ogbang, read on his behalf by the acting Director, Public Health Service, Federal Ministry of Health, Dr. E. A. Smith to the national meeting on Expanded Programme on Immunization which began yesterday at the Durbar Hotel, Kaduna.

Dr. Ogbang said that the successful eradication of smallpox in the country has demonstrated the fact that deadly diseases could be vanquished by well organised immunization programme.

He said that medical researches have also proved that with proper immunization programme against several diseases such as measles, tetanus, whooping cough and tuberculosis, they could be exterminated with the effective use of vaccine.

The commissioner said that the aim of the meeting of Expanded Programme on Immunization was to draw medical personnel involved in various state's immunization programmes so as to help define target groups of where a disease pre-dominated, for effective medical care and control.

He urged participants at the two-day meeting to deliberate on areas and ways of controlling measles, poliomyelitis, whooping cough, tetanus and also sustaining and maintaining the smallpox eradication programme.

He further urged them to pay special attention to the many difficult problems, including the control of vaccine, storage and transportation of cold boxes, etc.--with a view to finding a permanent solution to them.

"You should be able to determine the length of the entire programme in a concrete and specific manner and conditions under which it can be operated to benefit the entire population," the commissioner declared.

Dr. Peter Ogbang told the participants to include in the expanded programme, the concepts of primary health care, basic health measures and integrated rural development and mobilise all the resources needed for the successful implementation of the programme.

#### ANTIMALARIAL DRUGS DISTRIBUTED

Kaduna NEW NIGERIAN in English 3 Oct 77 p 15

[Text] The Niger State Commissioner for Health, Alhaji Yahaya Bawa Bosso, had said that the National Control Pilot Projects for "Mass Drug Distribution Programme" was aimed at curbing the spread of malaria which was one of the major causes of infant mortality in the country.

Alhaji Yahaya Bawa Bosso made the remark at Paiko while launching the programme on mass drug distribution against malaria last week.

The commissioner said that many senior staff in the malaria control techniques had received training at the Federal Malaria and Vector Control Unit Yaba, Lagos last year.

He said that some of them were trained in the supervisory field of entomology.

The pilot project was initially to cater for 40,000 people, he said. By November 1980, the commissioner said that the project is expected to cover the whole state.

Under a new arrangement, he further said that the state's Ministry of Health was to carry out Malaria Control Programme in every four weeks in order to reduce malaria parasites and to improve the health of the rural populace.

Alhaji Bawa also disclosed that his ministry had embarked upon Malaria Control Programme in urban areas through destroying and spraying in addition to distribution of antimalaria drugs.

PEOPLE'S REPUBLIC OF CHINA

CONFERENCE ON PREVENTING, TREATING TUBERCULOSIS HELD IN TSINGHAI

Sining Tsinghai Provincial Service in Mandarin 1100 GMT 23 Oct 77 OW

[Excerpts] The Public Health Bureau of the Tsinghai Provincial Revolutionary Committee held a conference in Sining from 12 to 19 October to exchange experiences in preventing and treating tuberculosis in southwest and northwest China.

The conference was attended by responsible persons and experts of the health management departments and the tuberculosis prevention and treatment units in the nine provinces and autonomous regions in southwest and northwest China. Also invited were comrades from the Peking Municipal Tuberculosis Research Institute, the Peking Municipal Tuberculosis Prevention and Treatment Clinic and the Lanchow Biophysical Products Research Institute.

The participants at the conference reviewed the achievements of and summed up and exchanged experience on preventing and treating tuberculosis in the various provinces and autonomous regions, and discussed future tasks.

It was pointed out at the conference that, since the Kunming conference on exchanging experience in prevention and treatment of tuberculosis in southwest and northwest China was held in December 1976, progress had been made in preventing and treating this disease in the nine provinces and autonomous regions. Party committees at all levels have strengthened leadership over this work and have coordinated it with plans for the movements to learn from Tachai in agriculture and Taching in industry.

The principle of emphasizing prevention and the directive of "In medical and health work, stress the rural areas" have been further implemented. Tuberculosis prevention has been further strengthened at the factories, mines and cities. Progress has been made in combining Western medicine with traditional Chinese medicine and in using herbal medicine in the prevention and treatment of tuberculosis. Consequently, the rate of infection and illness has dropped. At present, more people in Yunnan, Shensi, Szechwan, Sinkiang, Kweichow, Kansu, Tsinghai, Ningsia and Tibet are receiving preventive medicine, and the work of surveying, preventing and treating the disease is also being carried out.

During the conference the comrades from the Peking Municipal Tuberculosis Research Institute and the Peking Municipal Tuberculosis Prevention and Treatment Clinic introduced their experiences in preventing and treating this disease; delegates from Ningsia and Tsinghai also delivered academic reports. The conference approved the proposal of the tuberculosis prevention fronts in the nine provinces and autonomous regions.

## SENEGAL

### DETAILS OF ANTIMALARIA CAMPAIGN REVIEWED

Dakar LE SOLEIL in French 3-4 Sep 77 p 5

[Article by Khatary Fall]

[Text] Souleymane Bobo Vilane, prefect of Louga Department, presided last Wednesday over the monthly CDD [Departmental Development Committee] meeting in the auditorium of the city hall. The agenda of this meeting of the departmental development organization included various communications, among which were those relating to the chloroquinization campaign and to selection of the new boards of directors of the cooperatives.

Dr Lamine Diop pointed out that malaria is the most deadly of the endemic diseases that are prevalent in Senegal, and that every year our country pays this disease a heavy tribute. The physician in chief of the medical district declared that the most vulnerable segment of the population is the 1-to-13 year-old age group. A chloroquinization campaign is accordingly carried out each year with the objective of controlling the disease, which as we know flares up particularly with the advent of the rainy season because of the proliferation of larvae that accompanies the first rains. Dr Lamine Diop emphasized the benefits to be derived from the successful prosecution of the chloroquinization campaign advocated by the organization in charge of the fight against malaria, because the campaign is an excellent means for prevention of the disease.

This year Louga Department received 350 boxes of Nivaquine, compared to 200 last year. This lot has been divided among the various district capitals on the basis of demonstrated need. The current campaign involves primarily the 1-to-13 year-old age group and will be carried out by the distribution teams selected at the CER [Rural Expansion Centers] level. After determining the number of concerned children in each village, the chief of each distribution team estimates the number of tablets needed per geographical section and sets up a sales circuit to cover all the villages in his sector. The Nivaquine is sold for 1 franc 50 centimes per tablet.

A health education campaign will be carried out simultaneously with the distribution of the Nivaquine, with the aim of making the rural masses aware of the necessity of taking chloroquine regularly during the winter months.

Dr Lamine Diop enumerated the dosages recommended for each age. He pointed out, however, that these dosages are effective only for prophylaxis, and that when therapeutic treatment is indicated the public should follow the directions of the public health representative.

Following the presentation by the physician in chief, the DAC [expansion unknown] of ONCAD [National Office of Cooperation and Assistance for Development] took up the situation with respect to selection of the new boards of directors of the cooperatives.

Mr Sow informed the CDD of the series of measures adopted with a view to eliminating all the irregularities that have been the root cause of the difficulties encountered and of the misunderstandings that have arisen between the public and the organizing officials. Sow gave assurances that the election registers will be gone over carefully in order to make sure that no member is omitted. He added, however, that each member must fulfill the conditions prescribed by law, namely, effective payment of his dues; a well-established record of good conduct; and residence within the geographical area of the cooperative. Following these clarifications by Mr Sow a discussion ensued among the DAC, the subprefects, the CER directors and the representative of the rural population. The omissions that were revealed last year and which led to regrettable instances of discord were most assuredly put under the microscope.

The resume of the discussions was made by the prefect, who emphasized the necessity of allowing democracy to operate while avoiding the cleavages that have been developing among the members. All necessary measures must be taken in order that everything may take place in an atmosphere of calm and respect for the choice made by the majority, he said.

#### SOUTH AFRICA

##### PNEUMOCOCCUS 'SUPER GERMS' ISOLATED

Johannesburg THE STAR in English 8 Oct 77 p 2

[Text] The South African Institute for Medical Research next week hopes to give the death blow to a small core of ultraresistant "super germs," the leftovers of an antibiotic resistant strain discovered recently.

Professor Hendrik Koornhof, head of the bacteriology department, says that most carriers of the germ, a pneumococcus, have now been cleared.

They are mostly children and have been found in several Reef hospitals. But because of the location of the organisms in the body, antibiotic treatment in a few has not been entirely successful.

Isolated

The patients--who are not ill but merely harbour the bacteria--have been isolated in the CMR Hospital on the West Rand.

They will be given combination treatment with two new antibiotics to which the organisms are still sensitive. In addition, higher and more prolonged dosage with a previously used antibiotic will be given by aerosol.

This aerosol treatment, which ensures that the drug reaches the bacteria in the mucous membranes of the nose, has been pioneered by the institute and has proved highly successful.

#### MORE FUNDS FOR FIGHTING TUBERCULOSIS URGED

Johannesburg THE STAR in English 14 Oct 77 p 19

[Text] Tuberculosis in South Africa, the greatest killer disease in underprivileged communities, could be controlled only if the socio-economic status of the people was improved, Dr H. S. Hurwitz, president of the Institute of Public Health, said in Cape Town today.

Speaking at the institute's congress, he said:

"More will be done by employers' paying their black, coloured and Asian workers a living wage and by industrialists' and overseas investors' building up the black homelands economically than the R20m a year spent on TB by the State."

But South Africa suffered many other social diseases.

Dr Howard Botha, the Department of Health's director of strategic planning and co-ordination, outlined the State's plan for the health of the nation.

A comprehensive approach was fundamental to the country's future national health care, he said at the congress.

The hospital-centred comprehensive health service for the emergent and self-governing territories in South Africa had proved that a philosophy could also work in practice.

#### MENINGITIS DEATH REPORTED

Johannesburg THE STAR in English 17 Oct 77 p 15

[Text] East Rand Bureau--Jaco Naude (12), the Benoni schoolboy who was hit on the head by a cricket ball two weeks ago, died at a Johannesburg nursing home on Saturday after a dramatic deterioration in his condition.

His mother, Mrs Miriam Naude, told THE STAR her son had died of meningitis. She said the illness had been brought on as a result of the accident.

After Jaco regained consciousness early last week, he was making good progress and looking forward to going home at the weekend. He was having difficulty hearing but doctors and parents were pleased with his progress.

Suddenly, on Wednesday night, he became ill and developed meningitis. He died early on Saturday.

Final arrangements for the funeral have not yet been made.

#### SYRIA

##### HEALTH MINISTRY DENIES PLAGUE

Damascus SANA in Arabic 1720 GMT 5 Sep 77 JN

[Text] Damascus, 5 Oct--The Health Ministry today issued the following statement:

Rumors have been circulating recently about the appearance of plague [ta'un] cases. These rumors benefit only those who want to mislead and who do not wish this country well. The Health Ministry has carried out investigations throughout the provinces and absolutely confirms that there is no plague in this country. The ministry exhorts the citizens not to pay any heed to these misleading rumors.

#### THAILAND

##### HEMORRHAGIC FEVER STATISTICS

Bangkok Domestic Service in Thai 0000 GMT 10 Oct 77 BK

[Text] According to the director general of the Communicable Disease Control Department, from January to September this year there were a total of 29,568 cases of hemorrhagic fever of which 563 have died. There were only 6,829 cases of the disease in the corresponding period of last year. The fatality number was 259.

## TURKEY

### MALARIA IN URFA

Istanbul AKSAM in Turkish 27 Sep 77 p 5

[Excerpts] Viransehir (THA)--It is reported that there is an outbreak of malaria in the Viransehir district of Urfa Province, and that 300 individuals are being treated and observed. According to a statement by Mehmet Bakinci, chief of the Viransehir Malaria Eradication Office, the outbreak increased when local agricultural workers returned from Adana and vicinity and from Cukurova where they had been picking cotton. Dr Kazim Kazan, acting district governor of Viransehir, announced that corrective measures such as swamp drainage and restriction of water usage from certain ponds have been taken.

### INTESTINAL INFECTIONS

Istanbul HURRIYET in Turkish 9 Oct 77 p 3

[Excerpts] Pehlivankoy (Kirkclareli Province) (HHA)--Faik Senol, an elementary school teacher from Akarca village, Pehlivankoy district, suffered the loss of his daughter, 18 months old, to an intestinal infection. The child, Fusun Senol, had severe vomiting and diarrhea and was examined by government physician, Dr Guven Arslanagzi and transferred immediately to Kirkclareli State Hospital where she died. Faik Senol has registered a complaint concerning Kirkclareli State Hospital and pediatrician, Dr Simento Kanattali, who refused to disclose the autopsy findings pertaining to the child.

Istanbul HURRIYET in Turkish 10 Oct 77 p 3

[Excerpts] Gumushane (HHA)--Dr Ercan Tuglu, health director for Gumushane Province, has revealed that an outbreak of intestinal infection, which he says is not cholera, is spreading among the inhabitants of Bayburt district. He noted that three deaths occurred last year in a similar outbreak caused by sewage contamination of drinking water facilities in Bayburt. The governor of Gumushane has requested a bacteriologist from Ankara to diagnose the disease.

## UGANDA

### ILLEGAL TO CARRY VD

Kampala VOICE OF UGANDA in English 20 Sep 77 p 4

[Editorial]

[Excerpts] A unique decree has just been signed by Life President Amin--the Venereal Disease Decree. The decree is unique in the sense that it is the first time perhaps a country has seen it fit to enact a law against a troublesome public health ailment such as this one.

This example will no doubt be emulated by many other countries, both developed and developing, in order to try and eradicate this social ill. We would like to believe that the World Health Organization (WHO) will encourage other governments to follow suit as another way of deterring the incidence of VD worldwide.

The new decree will stand its test as time goes by when it is seen to be staving off from Uganda this most pernicious communicable disease in the modern history of man.

The incidence of venereal diseases in Uganda, though not alarming, is on the increase.

Now that the circumstances concerning VD have become law, it is expected that the Public Health Department of the Ministry of Health will step up its campaign to educate the public on how not to contract the disease, and on what symptoms to look for in case of suspects. This should be done unashamedly.

## UNITED ARAB EMIRATES

### MALARIA CONTROL

Abu Dhabi AL-ITTIHAD in Arabic 2 Sep 77 p 4

[Text] Sharjah--Dr Yusri Ahmad Fatin, district malaria specialist in Sharjah, asserted that the country is in a situation of continuous improvement with regard to malaria, and great effort is exerted to combat everything contributing to the spread of the disease. The Ministry of Health is carrying out an active struggle against locations where mosquitoes breed in public gardens, water ponds, springs and sewers, in addition to conducting an extensive campaign against mosquitoes inside the houses, by spraying the walls of the houses inside and out. He said

that in Sharjah alone there is a special unit of 10 workers, 2 inspectors and a supervisor, who use 2 cars; the unit makes a complete circuit of all the districts of Sharjah every 2 weeks. Dr Yusri said that he had sent a general order to all the companies operating in the various districts of the state requiring them to dispense medicines to all their workers, beginning the first of September and continuing for 8 weeks. The foreman in the company will give out the medicine every Saturday morning, and one of the health inspectors will follow up on the implementation. The ministry will provide the companies with their requirements of chloroquine and primaquine. He indicated that there are large stocks of these drugs in the hospitals, and other quantities of them will be distributed during the coming week.

He indicated the necessity for examining workers living in the country, because the diseases normally are found in the districts outside the city where workers live. He affirmed that infection by this sickness occurs via the carrier mosquitoes, which are very rare in the cities because of compliance with the regulations regarding windows. He explained that malaria, despite its spread in many Arab countries such as Egypt, Syria, Saudi Arabia, and most of the other Gulf states, has almost been eliminated in the Emirates because of the serious and special interest which the Ministry of Health has shown.

#### URUGUAY

##### NATIONAL HEALTH PROGRAM

Montevideo LA MANANA in Spanish 6 Sep 77 p 6

[Excerpts] The Ministries of Education and Culture and Public Health yesterday signed an agreement in which they pledge jointly to promote a health and health education program. The agreement will be in effect through December 1978 and it can be renewed on a yearly basis after that date. Implementation of the health plan has been assigned to the Health Centers Department of the Ministry of Public Health's Hygiene Division and to the Medical Services Staff of the Ministry of Education and Culture. These groups will build a health center in the Piedras Blancas area. The center will later be operated by the Ministry of Public Health. The Education and Culture Ministry has also agreed to provide assistance in other areas of public health by assigning social workers to work under the technical guidelines of the Health Center and other related services directors. It will also provide cultural and educational aid to the Dr Bernardo Berro and Dr Santin Carlos Rossi districts and to the Pereira Rossell and Vilardebo hospitals. This health and health education program is very important because it will bring preventive medicine to those areas most in need of health services.

## HYDATID CYST KILLS 50 PERSONS EACH YEAR

Montevideo LA MANANA in Spanish 8 Sep 77 p 14

[Article by Leon Cabrera]

[Text] Melo--Alarming figures have been released concerning the consequences of the hydatid cyst in our country, one of the nations with the highest rates of infection in the world. The figures were made known during a press conference held in the auditorium of the Casa de la Cultura and attended by members of the National Honorary Commission to Fight Hydatid Cysts and the chairman of the departmental commission, Col Ignacio M. Bonifacio.

The visiting delegation was made up of the chairman of the national commission, Col Julio Giorgi (retired), the executive director, Dr Luis Guarino, and the head of personnel, Ariel Recouso.

Newsmen present asked various questions concerning the campaign undertaken on the departmental level of control dogs.

In general terms, it was emphasized that the campaign would be to the benefit of the department and its residents and not aimed at dogs and their owners. More than anything, it is intended as a phase of awareness directed at making people realize the seriousness of the disease and its dangerous consequences. To that effect, Dr Guarino said that during the past decade, 550 persons have had to undergo surgery to have hydatid cysts removed, the only treatment known thus far to fight the affliction. On the average, 20.3 percent of the population is affected by the disease. While it is true that this would point to a decrease based on an increase in the population, the percentage is nevertheless very high. Some 50 victims of the disease die every year as a direct result of it or its complications.

The problem is also very important economically speaking, because 69.1 percent of all cattle, 80 percent of the sheep population and a high percentage of the swine entering the slaughterhouses are affected by the parasite, resulting in a substantial reduction in usable meat.

### Control at Departmental Level

The principal reason for the visit made to this city by the members of the National Honorary Commission to Fight Hydatid Cysts was to emphasize the importance of the disease by means of talks and illustrated films shown to students and teachers in the three branches of education, parents and the public in general. At the same time, the commission wished to give its support to the departmental commission for its fight to eradicate hydatid cysts, especially in rural areas.

The plan being carried out and which began a few months ago in Uruguay consists of a required sworn statement concerning the number of dogs, a reduction in the number of dogs to two on urban estates and three on rural properties, compulsory treatment of all dogs with Droncit, a known taeniacidal drug, every 45 days, and the requirement to register dogs annually.

These are the four basic requirements on which the campaign is based. It was emphasized that all four are of direct benefit to the population in general because dogs carry the tapeworm which produces hydatid cysts in humans and animals.

In order to reduce the number of dogs affected with the parasite, it is necessary to avoid feeding them raw intestines, a custom followed for many years which has made it impossible to achieve a decrease in the number of cases, a number that has remained constant.

#### High Percentage of Dogs

Finally, Colonel Bonifacio reported on the details of the campaign to be waged initially in the capital of Cerro Largo, going house to house. Col Luis Guarino emphasized that in our country, there are some 730,000 dogs. Based on the population of Uruguay, the maximum number should be 230,000, which indicates that we have half a million dogs too many.

With the provisions included in Law 13,459, especially Articles 21 and 22 to be applied during this campaign, it is hoped that there will be a substantial reduction in the number of dogs and in the serious consequences of hydatid cysts. As a result, the support of the population is essential.

#### MASS IMMUNIZATION IN DELTA DEL TIGRE ZONE

Montevideo EL PAIS in Spanish 18 Sep 77 p 7

[Excerpts] Persons evacuated from the Delta del Tigre zone in the Department of San Jose are being housed at Vasquez. A visit was made by officials to the facilities and lodgings set up to accommodate victims. The inspection took psychological factors, sanitary conditions and food into account, and it was concluded that all aspects were highly satisfactory.

Cooperating with the police authorities in charge of the operation were the General Army Command, the Elementary Education Council, the General Directorate of Civil Defense, the Ministry of Public Health and the Uruguayan Red Cross.

The entire population of the Delta del Tigre zone in the San Jose Department was vaccinated for measles, typhus [probably typhoid] and poliomyelitis. At the same time, machinery and equipment from the intendancy of San Jose

undertook drainage work in affected zones. Food and medicine continue to be distributed and tank trucks are supplying water to residents. The operation is being personally directed by the San Jose chief of police. Firemen from Montevideo and the department in question are helping with the task.

#### 1970-1974 DEATHS FROM DISEASES

Montevideo EL DIA in Spanish 18 Sep 77 p 9

[Excerpts] According to a study published by the DGEC [General Bureau of Statistics and Census] from 1970 to 1974 typhoid fever took 21 lives; diarrheal diseases, 1,805; tuberculosis of the respiratory tract, 843; diphtheria, 4; whooping cough, 41 and pneumonia, 2,974.

Other causes of death were: measles, 149; syphilis, 173; diabetes, 3,363; meningitis, 832; influenza, 840; cirrhosis of the liver, 1,447.

#### CONTROLS ON FOOD DEALERS, PRODUCERS

Montevideo LA MANANA in Spanish 22 Sep 77 p 6

[Text] All companies directly engaged in the production and sales of food must register with the administration office in Montevideo. The Bromatology Office will be responsible for enforcing the inspector's measure which affects, in particular, those who produce, import, represent, distribute, transport or sell any foodstuff to the public. The regulation also calls for the registration, identification and numbering of food based on a new procedure established by the public authorities. As a result, in the near future notices will be sent out. A 120-day period starting from the date the notices are sent out will be set aside for compliance. At the end of the 120-day period, all registration papers issued to date will be invalid. Thus the existing registration system will be completely revamped and organized in keeping with the provisions of the Bromatology Ordinance. Companies must register in writing on paper bearing the official municipal seal while the registration of food will require that two cards supplied by the Bromatology Office be filled out. As for products that have already been authorized, current labeling can be used, with prior notification of existing stocks, for a period of not more than a year.

USSR

CPSU, COUNCIL OF MINISTERS ADOPT PUBLIC HEALTH DECISION

Moscow Domestic Service in Russian 0000 GMT 15 Oct 77 LD

[Text] The CPSU Central Committee and the USSR Council of Ministers have adopted a decision on measures to further improve public health. It notes that, as a result of the deep socioeconomic transformations that have taken place during the 60 years of Soviet power, public health has achieved major successes. Conditions have been created for citizens of the USSR to receive free and universally accessible skilled medical care. The right to health protection is laid down in the USSR Constitution and is insured by the state public health system. Our country has 24,000 hospitals and 865,000 doctors. Many infectious diseases have been eradicated. Vocational diseases and industrial accidents are being systematically reduced.

The decision specifies an integrated program of measures for the further improvement of public health. In particular, ministries and departments and the councils of ministers of the union republics are required to raise the standards demanded of managers of industrial enterprises and construction organizations as regards the rules of hygiene, norms for the prevention of environmental pollution and for noise levels in factories and in everyday life. They are instructed that new polyclinics and outpatient departments should be built, primarily in newly developed areas and rural localities. They will hold dispensaries in the evening and on Saturdays in accordance with the work timetable of enterprises. Special attention is given in the decision to improving health services for women and children. The network of children's polyclinics, women's consultations, maternity hospitals, children's hospitals and sanatoria as well as pensions [pansiwaty] providing therapy for parents with children, and specialized all-year sanatorium-type Pioneer camps, is to be extended. The decision also outlines measures to improve medical assistance to children of preschool and school age.

An all-union scientific research center for the protection of the health of mother and child is to be set up in Moscow in 1979.

The decision sets out additional privileges for district and rural doctors, and doctors providing first aid and urgent medical attention. The heads of enterprises and organizations integrated into the system of planning and of economic incentives are given the right to make payments of rewards from the material incentive fund of the enterprise--according to the results of the enterprise's work over the year--to staff of the medical and sanitary sections of works centers and to staff of sanatoria and prophylactic care units attached to workshop centers.

The honorary title of people's doctor of the USSR is established.

In the interest of raising qualification it has been decided to send doctors at least once every 5 years to additional training institutes and to faculties of additional training and specialization attached to medical and pharmaceutical institutes; a considerable expansion of all these is planned.

A total of 20 establishments to raise the qualification of staff with a secondary education are to be set up in 1979-1981 on the basis of the health institutions.

By 1985 the output of medical equipment will increase 250 percent compared with this year, and the production of medicines [medikamenty] will be considerably expanded. The USSR Ministry of Health and the Academy of Medical Sciences, along with the councils of ministers of the union republics and the USSR Academy of Sciences, are charged with drawing up a program of scientific research, with priority for the development of fundamental branches of theoretical, experimental and clinical medicine.

The decision of the CPSU Central Committee and the USSR Council of Ministers on measures for the further improvement of public health will be published in tomorrow's newspapers.

#### VIETNAM

#### HEMORRHAGIC FEVER PREVENTION

Hanoi HANOI MOI in Vietnamese 30 Aug 77 p 2

[Text] Recently the Hanoi Pharmaceuticals Enterprise and the retail outlets of the Hanoi Oriental Medicine Corporation, the Quang An Oriental Medicine Shop and the Pill Shop prepared, packaged and shipped tens of thousands of packages of Sophora Japonica and febrifuges for timely distribution to hospitals and public health bureaus to fight the epidemic [of hemorrhagic fever]. Workers at the 8 May Drug Store and drug stores located at 54 Hang Buom Street and in Ba Dinh, Dong Da, Hoan Kiem and Hai Ba Trung wards expedited the receipt and distribution of hundreds of thousands of Sophora Japonica pills, vitamin C tablets, etc. to speed their distribution to public health installations in order to prevent and fight hemorrhagic fever. At present pharmaceutical installations are producing and packaging large additional quantities of the drugs for their widespread supply to the sick.

### III. ANIMAL DISEASES

#### AUSTRALIA

##### IMPORTED DISEASED BIRDS INFECT NATIVE BIRDS

Sydney THE AUSTRALIAN in English 23 Sep 77 p 1

[Text] More than 1,000 native birds worth \$90,000 have been destroyed because they came into contact with diseased birds imported from Indonesia.

The Minister for Primary Industry, Mr Sinclair, said yesterday the action was taken to prevent Newcastle disease spreading to the susceptible poultry industry.

Raids were carried out yesterday by officers from agriculture and health departments on three aviaries in Cairns, Queensland, and Gosford and Wollongong in NSW.

About 200 birds of 75 species including Australian parrots, lorikeets, cockatoos and budgerigars as well as some exotic birds, together worth about \$90,000 had to be slaughtered.

#### COLOMBIA

##### GOVERNMENT WARNS AGAINST FOOT-AND-MOUTH DISEASE OUTBREAK

Bogota EL SIGLO in Spanish 2 Oct 77 p 7

[Text] Because of the presence of type "O" foot-and-mouth disease in the Bogota plains, which was confirmed by the Veterinary Medicine Research Laboratory, the ICA [Colombian Agricultural-Cattle Institute] has informed livestock raisers, the authorities, and communications media that the following steps have been taken:

1. Livestock breeders in the Bogota plains have been advised to conduct a complete revaccination of their livestock with a vaccine against foot-and-mouth disease.
2. A quarantine of the affected areas, corresponding to the towns of Cota, Funza, and Mosquera, has been established.
3. Fairs and exhibits in the Bogota plains area will not be permitted from now until the danger of the spread of this disease disappears.
4. In addition to an intensified monitoring of the situation in the affected area, an epidemiological study is being conducted. Veterinarians in private practice and all livestock raisers are urged to give their strong support to this effort.
5. If, with these steps being taken now by the health authorities (ICA) with the cooperation of the livestock association in the Bogota plains, the health risk still persists, the ICA regional office No 1 will establish a strict quarantine throughout the entire Bogota plains which would entail the closing of markets and livestock trade fairs as a means of protecting the region's livestock industry.
6. Using all the communications media, the ICA will keep the public informed about the situation and will request the continuing cooperation of all livestock raisers in order to ward off the outbreak of foot-and-mouth disease which has been diagnosed.

#### SENEGAL

#### LIVESTOCK IMMUNIZATION OPERATIONS CONTINUING

Dakar LE SOLEIL in French 23 Sep 77 p 6

[Article by E. Dieng]

[Excerpts] In the context of animal protection, the Department of Animal Husbandry again took up the fight against bovine diseases.

Preventive animal care was essentially directed against bovine plague with 18,192 immunizations, bovine peripneumonia with 18,445 immunizations, symptomatic anthrax with 9,284 immunizations, botulism with 7,754, sheep pasteurellosis with 5,925 and 1,552 immunizations for avian diseases.

According to the head of the Department of Animal Husbandry, Mr Papa Demba Sow, the livestock situation improved markedly compared to the previous year, owing to the total mobilization of the technical staff and the good work done in educating the stockbreeders. In the course of

operations for bovine protection, 6,048 consultations were given and 4,064 cases treated completely at the central clinic and the three secondary ones.

In connection with the "save the calves" drive, an awareness program was conducted by the husbandry staff and owing to it the livestock was totally rebuilt with systematic antiparasitic treatment carried out in the three districts which form the department of Bambey.

#### URUGUAY

#### AGREEMENT WITH BRAZIL PRODUCES NEW METHOD OF BRUCELLOSIS CONTROL

Montevideo EL PAIS in Spanish 16 Sep 77 p 22

##### [Text] Penalties for Tardy Vaccination

The health regulation which consists of the application of an acidified antigen prepared from "Rose of Bengal," or the so-called "Huddleson" now used to control brucellosis, constitutes a significant gain in determining with great precision whether or not an animal is suffering from the disease or whether its blood is merely registering the effects of the vaccine.

This scientific program, which helps to improve our country's international prestige on the world meat market, cannot be left up to the judgment of the ranchers, to their good or bad will, because they must vaccinate cattle in the proper manner and at the proper time--that is, between 3 and 6 months of age maximum, depending on existing legislation--in order that health control measures will not be thrown off by any delay in the vaccination.

For these and other fundamental reasons in the public interest, it was decided that any animal vaccinated after 6 months of age which showed a reaction should be considered to be suffering from brucellosis.

The General Directorate of Veterinary Services of the Ministry of Agriculture and Fishing is aware that the use of this criterion may involve unfortunate cases in which the disease is not the cause of a positive reaction and in which the reaction results from late vaccination. But when there is doubt, the proper authorities have deemed it more in keeping with the national interest and the faithful keeping of international commitments, to consider as ill those animals which appear suspicious because they were not vaccinated at the proper time, as explained.

### Legal and Commercial Reasons

Our ranchers should therefore perform the brucellosis vaccinations between the ages of 3 and 6 months maximum. This time period always had a sound technical and legal basis but the practice is now indispensable because of scientific reasons given.

In order to maintain a good, fluid commercial level of vaccinated cattle with Brazil, it is necessary for our country to continue to produce heifers vaccinated for brucellosis at the proper time.

The absolute need for our ranchers to realize the timeliness of vaccinating cattle for brucellosis between 3 and 6 months of age and no later will become even more evident if they think about the following information.

In keeping with the fight against brucellosis now going forward, the Office of the Secretary of Agriculture of Rio Grande del Sur, Brazil, has resolved that animals with positive reactions will be slaughtered at packing plants inspected by the proper Federal Inspector's Service and that such animals will be replaced by heifers purchased in Uruguay with financing to the breeders, within a program aimed at stimulating milk production of the Office of the Secretary of Agriculture. As one can see, the need to vaccinate our heifers at the proper time and in the proper manner is essential in order to insure normal and progressive trade with Brazil. It goes without saying that proposals made concerning health practices will be understood by our ranchers, whose intelligence will, together with the professional skill of our veterinarians, insure proper vaccination immediately and the resulting regular application of health control standards that will be in effect starting 1 January 1978.

### FOOT-AND-MOUTH DISEASE CHARGE

Montevideo EL PAIS in Spanish 16 Sep 77 p 9

[Excerpts] The Chamber of Meat Packing Industries sent a telegram yesterday to the Uruguayan ambassador in Chile, Roberto Gonzalez Casal, demanding an explanation of the charges made in Chile which have spread outside its borders. The telegram states: "The press in our country has published an ANSA report indicating that 'health officials in Chile have banned imports of beef from Uruguay after finding foot-and-mouth disease virus in the beef.' The cable contained erroneous accounts which are seriously damaging to Uruguayan beef exports in the eyes of traditional buyers. The report is erroneous and malicious when it is taken into account that the last sale to Chile was made by an Uruguayan meat packing plant in December 1974. The shipment was on a one-time basis and consisted of 59 tons. There were no complaints. Given the enormous damage this report can cause abroad, we are asking you, Mr Ambassador, to officially disavow this report. Respectfully, J. Antonio Marta, President, Jorge Costa Munoz, Assistant Secretary, Chamber of Meat Packing Industries."

#### IV. PLANT DISEASES AND INSECT PESTS

##### GENERAL

###### TSETSE FLY INVASION EXPANDS

Johannesburg WEEKEND WORLD in English 9 Oct 77 p 3

[Text] Wars, economic failure and political strife throughout Africa have given the tsetse fly a new lease of life. And experts warn that action must be taken soon...

The tsetse fly is on the march. It has been reported in areas never affected before...and on a frighteningly large scale.

International experts meeting in Nairobi say that in livestock production alone hundreds of millions of rands are being lost every year.

Rhodesia's tsetse control programme has been seriously cut back by guerrilla incursions. Uganda, once Africa's champion in the fight against the fly, is again gravely infested.

The tsetse fly has returned to Ethiopia's embattled lowlands to South Sudan, Southern Angola and parts of Zaire.

In other countries economic depression has crippled tsetse control programmes launched mainly by former white administrators and continued by expatriate specialists.

###### Epidemic

Angola could soon face an epidemic of sleeping sickness and tsetse-borne livestock disease unless essential work is resumed, experts believe.

Where agriculture has run down in Mozambique the tsetse fly has reappeared. Uganda's rampant flies could threaten neighbouring Kenya and

ironically any major re-emergence of tsetse disease in Rhodesia could spread into Zambia and Mozambique, hosts to the guerrillas who have driven back Rhodesian field teams.

In Zaire several thousand cases of sleeping sickness are reported every year. Tanzania's action against tsetse fly has given way to more pressing economic problems and Somalia is short of trained medical and veterinary staff.

Only Nigeria, Zambia, Botswana and Kenya are said to be taking the tsetse scourge seriously.

Of all the African countries south of the Sahara prone to the tsetse fly, only South Africa has wiped out the species.

#### Eradicated

"Very few flies can cause a tremendous amount of disease," said Professor Ian McIntyre, a senior British veterinary scientist. It is no good cutting down on the number of flies. They must be completely eradicated.

"The tsetse invasion is expanding. The overall picture in Africa is not a rosy one and there are few grounds for optimism."

#### IRAN

#### BATTLE AGAINST GREEN PEST IN PISTACHIO ORCHARDS

Teheran ETTELA'AT in Persian 4 Sep 77 p 21

[Text] In pistachio orchards, the Plant Protection Organization is cooperating with the owners in fighting against the "green pest" [species of aphis].

Following the news of the attack of pests on the pistachio products of Rafsanjan, the Public Relations Department of the Ministry of Agriculture announced that a plan for fighting special pistachio pests is being implemented in all pistachio orchards throughout the country, including Rafsanjan, and that so far the owners of the pistachio orchards have not sustained any loss. The spokesman added: Based on the report of the Plant Protection Organization, for some years now a type of fungous pest locally called "masu" [transliteration] was observed in the pistachio orchards of Kerman. After adequate studies, it was found out that this type of disease is transferred to the pistachio nut by all types of pests, through the sting of the insect, when the pistachio nut is still "milky" and has not hardened. And so, the pistachio nut becomes hollow.

The Plant Protection Organization immediately undertook an extensive plan for combating the pistachio pest in Kerman and especially the Rafsanjan areas and by dispatching experts and pest-control poisoning. The pest has been brought under control and has not spread to other orchards. This year, the pistachio pest-control measures were taken in time, especially against the "green pest," with the help of the owners of the pistachio orchards, and so far they have not sustained any loss.

PEOPLE'S REPUBLIC OF CHINA

NEW LOW-TOXIC INSECTICIDE

Peking NCNA in English 0733 GMT 7 Oct 77 OW

[Text] Peking, Oct 77--A new low-toxic insecticide has been proved highly effective in preventing and treating fusarium wilt and verticillium wilt of cotton. It is also effective against many fungal diseases of wheat, paddy rice and other crops. It was developed by a group under engineer Chang Shao-ming of the Shenyang Chemical Engineering Research Institute in northeast China, after screening several hundred new drugs they had synthesized.

ZAIRE

CAMPAIGN WAGED AGAINST MOSQUITOES

Kinshasa ELIMA in French 7 Oct 77 pp 1, 8

[Editorial article in "Viewpoint" column]

[Excerpts] It was high time that the Executive Council thought of making an effort against the mosquitoes in Kinshasa, if not throughout Zaire. Every night the outlying sections of Kinshasa are invaded. For 3 weeks, according to the state commissioner for public health, about 10 teams were sent out on a campaign against mosquitoes and other harmful insects, disinfecting gutters, houses and vacant lots. The people of Kinshasa are happy to see the end of some of these pests. They are also happy about the decision of the urban commissioner to turn over the management of the state dispensaries to the Catholic, protestant and Zimbangivist missionaries which seems a right decision because of their loyalty and numerous sacrifices for the health of the population. Kinshasa is not Zaire, and the illnesses which befall Kinshasa, especially malaria, also exist to a certain extent in the regions. Thus, we hope that the struggle against mosquitoes and other harmful insects will also be extended to the rest of the country.

CSO: 5400

- END -